

*HOSPITAL TRENDS
AND DEVELOPMENTS*

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HOSPITAL TRENDS AND DEVELOPMENTS

1940-1946

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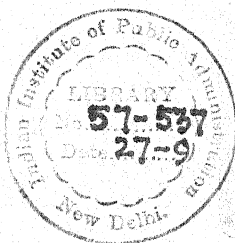
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PREFACE

THE American public is evidencing increasing awareness of the value of good health. Active and earnest efforts are being undertaken to make all health services more readily available to all of the people.

There is general recognition of the value and importance of the hospital as a health agency. No other public service agency has grown so rapidly or has had so tremendous a development as has the hospital during the last fifty years. It is now recognized as one of the leading social institutions of the community. The converging forces of many influences are responsible for this development. Chief among them is the rapid advance of medical science. The discovery of many new therapeutic agents and the improvement of techniques and instruments for diagnosis have increased the complexity of the hospital's organization and have extended the scope of its functions. The public's appreciation of the values of their services is largely responsible for the demand for the extension of hospitals to all parts of the country.

The organization and administration of the institution's functions present many problems. These problems and the ever-widening scope of functions performed by the hospital are discussed in articles which appear in various publications, many of which are frequently not readily at hand or available to the reader who is interested in hospital affairs.

The present collection of readings is intended to reflect some of these problems and to present material which indicates recent thought and opinion concerning the development of hospital service. Like its precursor and companion volume, *THE HOSPITAL IN MODERN SOCIETY*,* it contains selections from literature in the fields of hospital care, medicine, public health, business organization and management, law, sociology, psychology, and allied fields. Many of the articles were extensively illustrated when originally published. Owing to certain practical limitations some of this supplementary material could not be reproduced.

The editors believe that there has been a noticeable improvement in the quality and quantity of professional writing in the hospital field. There is evidence of more objective comprehension and objective analysis of hospital problems, as against the highly personalized experience of individual administrators in individual situations, such as characterized the bulk of previous written expression.

Emphasis has shifted in certain aspects of hospital administration to include new fields of endeavor. As a result, chapters have been added on five subjects which did not appear in the previous volume. These deal with Current Trends, Rural Hospital and Health Facilities, Hospital Developments in Foreign Countries, Volunteers and Volunteer Service, and Regional Planning of Hospital Services and Facilities. On the other hand, a Historical Review has not been included, since this was felt to be a subject which required no revision.

This book is designed for use by essentially the same groups as the preceding volume: namely, the hospital administrator or administrative assistant, the department head who desires to gain a broader understanding of hospital problems, and the student. The years 1940-1946 have witnessed a material growth in formal courses in hospital administration

* The Commonwealth Fund, 1943.

in a number of our leading universities throughout the country. This volume is intended to assist those students who are in the process of preparing themselves for a career in the field. With the increasing need for the enlightened judgment of hospital governing-board members, it is a further aim of this book to provide them with a readily accessible reference to current hospital literature. Many others who are engaged in related health fields will find it helpful in their work.

The editors wish to express their appreciation to the contributors and publishers for their generous and wholehearted cooperation. Further acknowledgment is made of the valuable assistance rendered by Miss Helen Pruitt of the Bacon Library, American Hospital Association; Mrs. Muriel De Populo and Miss Jessie Green, Newton-Wellesley Hospital; and Mrs. Dolores Stevenson and Orville E. Bakko of the University of Iowa Hospitals. Special tribute is paid to the late Helen Perry Miller, of The Commonwealth Fund, for her outstanding service in the preparation of *THE HOSPITAL IN MODERN SOCIETY* as well as the manuscript of the present volume.

A. C. B.
G. H.

July, 1948

CONTENTS

PART ONE

Chapter I. Current Trends	Page
1. Some Trends of Today That Will Help Shape Tomorrow's Hospital, by Fred G. Carter, M.D.	3
2. Content and Administration of a Medical Care Program; Unmet Health Needs, by I. S. Falk	7
3. Hospitals Now and After the War, by Basil C. MacLean, M.D.	15
4. Add Another Two Billions for "Adequate" Future Plant, by V. M. Hoge, M.D.	20
5. Parran on Health and Hospitals in the Near Future	26
6. Partners with Other Private and Governmental Agencies, by Basil C. MacLean, M.D.	28
7. Medical Care in a National Health Program; An Official Statement of the American Public Health Association, Adopted October 4, 1944	31
8. Medicine and the Public Welfare, by Viscount Dawson of Penn, M.D. . .	35
 Chapter II. Hospital Service	
1. The Hospital: Expediter or Obstructor of Science? by James A. Hamilton .	48
2. The Community Hospital and Public Health, by Ira V. Hiscock	56
3. The Preservation of a Free Hospital System, by S. S. Goldwater, M.D. . .	60
4. Problems Confronting American Hospitals, by A. C. Bachmeyer, M.D. . .	66
5. The Right Road to Hospital Care; Recapitulation of the Commission's Recommendations	75
 Chapter III. Rural Hospital and Health Facilities	
1. A Real Health Program for Rural America, by Carroll P. Streeter	81
2. In Rural Health the Greatest Need Is Organized Planning, by Mrs. Jerome Evanson	85
3. Lest We Forget: The Rural Medically Indigent, by Kenneth E. Pohlmann .	88
4. In Postwar Days Rural Health Will Pose a Challenge, by Harold F. Stock .	95
5. Selection of Hospitals in Small Urban Areas, by Joseph W. Mountin, M.D., and Elliott H. Pennell	101
6. Health Center Designed for Rural Needs, by J. R. McGibony, M.D. . . .	111
7. How the Blue Cross Came to Rural America, by Virginia M. Liebeler . .	118
 Chapter IV. Hospital Developments in Foreign Countries	
1. As Britain Looks at Health Service, by Graham L. Davis	125
2. Postwar British Medicine, by Sir Frederick Menzies, K.B.E., M.D. . . .	129
3. Australia's Government Is Working toward Hospitalization That Is Free, by Senator the Honorable James M. Fraser	135
4. A Network of Hospitals Is Mexico's Immediate Goal, by Gustavo Baz, M.D.	140
5. Rural Health Services in the Soviet Union, by Henry E. Sigerist, M.D. . .	142

PART TWO

	Page
Chapter V. The Trustee	
1. Who Are These Trustees? by Malcolm M. Willey	157
2. The Trustee Is Responsible, by E. M. Bluestone, M.D.	159
3. Obligation of Trustees to the Medical Profession, by Claude W. Munger, M.D.	163
4. If I Were a Trustee, by Howard R. Taylor	167
Chapter VI. Hospital Organization and Management	
1. Decision-making and Administrative Organization, by Herbert A. Simon . .	171
2. So You Think You Have Authority, by Ray E. Brown	186
3. The Role of Communication Systems in the Process of Administration, by John J. Corson	189
Chapter VII. The Hospital Administrator	
1. Selection of the Administrator, by Malcolm T. MacEachern, M.D.	200
2. Educating the Administrator, by A. C. Bachmeyer, M.D.	206
3. Development of Hospital Facilities for Patient Care, by Mildred F. Walker .	209
4. The Case Method in Teaching Public Health Administration, by Harold D. Chope, M.D.	214

PART THREE

Chapter VIII. Medical Staff Organization and Relationships	
1. Medical Service Audit, by Wilmar M. Allen, M.D.	221
2. Three Eras in the Developing Relationship of Medical Education and Care, by Samuel Proger, M.D.	223
3. The Hospital's Responsibility in Postgraduate Education of the Visiting Staff, by Frank R. Bradley, M.D.	233
4. Educational Program for Interns and Residents in a Nonteaching Hospital, by Joseph G. Norby	235
Chapter IX. Nursing Education and Nursing Service	
1. Community Needs Challenge the Nursing Profession, by Constance Long . .	243
2. Giving the Student Nurse Rural Experience, by W. C. Coffey	245
3. Aside to Nurses: Patients Are People—Not Cases, by Cornelia H. Hinds . .	247
4. Massachusetts Pattern for Training Attendant Nurses, by Katharine Shepard .	248
5. The Shape of Things to Come in Nursing Service, by Dorothy Rogers Wil- liams	251
6. Stabilize Nursing Service through Accurate Personnel Records, by Charlotte C. Dowler	255
7. Maintaining the Quality of Nursing Service in Times of Emergency, by Clare Dennison	258
8. Increasing and Using Nursing Auxiliaries, by Lucile Petry	269

Chapter X. Operating Room	Page
1. A Twin Attack on Operating Room Hazards, by Warren P. Morrill, M.D.	278
2. Savings Result from Good Surgical Technique, by Howard E. Bishop . . .	283
3. Roles of Professional and Administrative Staffs in Control of Postoperative Infections, by Frank L. Meleney, M.D.	288
4. You Can Save in the Surgery, by Raymond W. McNealy, M.D.	292
Chapter XI. Obstetrical Service	
1. Standards and Recommendations for Hospital Care of Newborn Infants . . .	297
Chapter XII. X-ray Service	
1. By Miniature X-ray Screening, the Chest Patrol Protects Both Patients and Hospital Employees, by Fred Jenner Hodges, M.D.	310
2. Equipment Needed for Routine Chest X-ray, by H. E. Hilleboe, M.D., and Russell H. Morgan, M.D.	314
Chapter XIII. Outpatient Department	
1. The Outpatient Department in the Small Hospital, by John T. Morrison, M.D.	318
2. Diagnostic Clinics—Inpatient and Outpatient, by Frank E. Wing . . .	322
3. The Follow-up Clinic, by John B. Pastore, M.D.	328
4. Outpatient Care for the Needy; Policies That Should Govern the Use of Tax Funds for the Care in Nongovernmental Outpatient Departments of Patients Who Are Public Responsibilities, by the Joint Committee of the American Hospital Association and the American Public Welfare Association . . .	331
Chapter XIV. Special Services	
1. Cancer Control Is a Hospital "Selling Job," by Oliver G. Pratt	351
2. Adequate Convalescent Care Is the Shortest Road to Health, by Claude W. Munger, M.D.	353
3. The Chronics; They Belong in General Hospitals, by E. M. Bluestone, M.D.	356
4. Dental Service in Hospitals, by Benno E. Lischer, M.D.	360
5. The Future of Psychiatric Care in Hospitals, by Karl Menninger, M.D. . . .	363
6. Tuberculosis Control in General Hospitals, by Robert G. Bloch, M.D., William B. Tucker, M.D., and Arthur C. Bachmeyer, M.D.	367
7. Air-Borne Infection Can Be Reduced with These New Techniques, by Edward Bigg, M.D., and Margaret Mellody	375
8. Oxygen Therapy; The Administrator Considers Economy, by Worth L. Howard	379
Chapter XV. Medical Social Service	
1. Medical Social Service, by Leonora B. Rubinow	385
2. The Sphere of the Social Worker, by F. Stanley Howe	392
3. Responsibility of the Clinic in National Health, from the Viewpoint of the Medical Social Worker, by Eleanor Hall	395

Chapter XVI. Clinical and Pathological Laboratories		Page
1. Laboratory and Diagnostic Facilities in the Small Hospital, by John C. Leonard, M.D.		401
2. The Advantages and Dangers of Blood and Plasma Banks, by Jonathan E. Rhoads, M.D.		404
3. Success of Autopsy Program Rests on Organization and Planning, by J. E. Blumgren, M.D.		414
Chapter XVII. Pharmacy		
1. What the Pharmacy Does for the Patient, by Ray M. Amberg		418
2. Full-time Pharmacist for Sixty-five Beds, by A. A. Aita		420
3. Education and Economy Are Furthered by a Hospital Formulary, by Don E. Francke		422
Chapter XVIII. Medical Records		
1. Assessing the Medical Record's Value Today, by Nellie Gorgas		427
2. The Unit Record System in the Light of Modern Hospital Construction, by Adaline Hayden		430
3. A Broad Summary of What Is Good and Bad about Microfilmed Records, by Edna K. Huffman		433
4. Why Not Discard Medical Records after Twenty-five Years, by Fred G. Carter, M.D., and Frank C. Sutton, M.D.		437

PART FOUR

Chapter XIX. Admitting and Discharge	
1. Admitting Practices	441
2. Discharge Arrangements for Hospital Patients, by Frances M. Money	443
3. Hospital Credit and Collections, by William B. Nash	446
Chapter XX. Financial Control	
1. What Accounting Should Show the Administrator and How to Get It, by Charles G. Roswell	453
2. Budgetary Control, by Guy J. Clark	462
3. Government View of Hospital Costs; Policies Pertaining to the Purchase of Hospital Care under State Maternal and Child Health and Crippled Children's Programs, by A. L. Van Horn, M.D., and Edwin F. Daily, M.D.	472
4. Base Rates on Costs for Satisfactory Relationship with Federal Agencies, by Fred G. Carter, M.D.	478
5. The Development of Inclusive Rates, by James V. Class	483
6. Service Rendered Is Basis of Cleveland Community Fund Subsidy, by Guy J. Clark	491
7. Approach to a Cost Study of Nursing School Operations, by Louis Block	497

Chapter XXI. Legal Aspects	Page
1. Rule of Immunity for Hospitals Is Narrowed by Recent Court Decisions, by Emanuel Hayt	504
2. The Legal Basis of Tax Exemption, by Emanuel Hayt	510
3. Nonprofit Hospitals Are Exempt from Medical Practice Acts; Medicine Is Practiced <i>in</i> and Not <i>by</i> Hospitals, by Joe R. Clemmons, M.D., and Emanuel Hayt	517
4. Upgrading of Hospital Care Is the Goal of Massachusetts Licensing Law, by Vlado A. Getting, M.D., Richard P. MacKnight, M.D., and Mary T. McCann	527
Chapter XXII. Hospital Construction	
1. Postwar Construction of Hospitals, by Isadore Rosenfield	533
2. How Small Is Too Small? by E. M. Bluestone, M.D., Joseph C. Doane, M.D., and Claude W. Munger, M.D.	536
3. Planning a Hospital to Human Specifications, by J. J. Golub, M.D.	540
4. Notes on Hospital Planning, by The Hospital Facilities Section, U.S. Public Health Service, Federal Security Agency	551
5. Should the Building Last Forever? by Fred G. Carter, M.D.	569
6. Three Guides to Finding a Good Architect, by James R. Edmunds, Jr., and Henry H. Saylor	573
Chapter XXIII. Plant Maintenance	
1. Emphasis on the Engineer, by Fred G. Carter, M.D.	577
2. First Aid for the Power Plant; National Fuel Efficiency Program, by J. H. Burton	579
Chapter XXIV. Purchasing	
1. Purchasing and Storeroom Control, by Florence King	583
Chapter XXV. Food Service	
1. The Hospital Diet at Today's Food Costs, by Mrs. C. Milo Connick	599
2. Installing a Pay Cafeteria for Personnel, by Mary M. Harrington	608
3. Educational Role of Hospital Dietitians Emphasized by Current Problems, by Marion Floyd	612
4. Adequate Teaching Program Helps Adjust Dietary Employees to Their Work, by Gertrude I. Thomas	614
5. The Factor of Food Habits, by Margaret Mead	615
6. Planning Physical Features of Food Service, by Charles V. Wynne and James A. Hamilton	621
Chapter XXVI. Housekeeping	
1. An Administrator's Angle on Housekeeping, by Nellie Gorgas	629
Chapter XXVII. Laundry Management and Linen Control	
1. Laundry Modernization, by J. R. Clemmons, M.D.	632

	Page
2. Efficient Operation for the Duration	636
3. Maintenance of Equipment	640
 Chapter XXVIII. Personnel Management	
1. The Human Element in Personnel Management, by Lawrence A. Appley	643
2. Seeking a Working Force, by Lillian Gilbreth	654
3. Selection and Placement of Workers, by Howard L. Davis	661
4. Personnel Problems with Relation to Civil Service and Government Restrictions, by G. P. Bugbee	665
5. Wage Determination; Program and Policies, by John W. Riegel	668
6. Comprehensive Health Service for Hospital Employees, by Arthur J. Geiger, M.D.	677
7. Have You Considered a Pension Plan? by Otho F. Ball, M.D., and Robert F. Spindell	686
8. Labor Organization and Government Regulation of Labor Relations, by Leo Wolman	689
9. Collective Bargaining, by Gerry Morse	693
 Chapter XXIX. Public Relations	
1. True Bases of Public Relations; Good Manners, Good Morals, Good Taste, by Basil C. MacLean, M.D.	698
2. Service Is the Cornerstone, by Alden B. Mills	700
3. Public Relations from the Doctor's Point of View, by Walter G. Phippen, M.D.	704
4. Hospitals and the Press, by David Dietz	708
5. It's a Full-time Job, by Ellen Petts Marcossan	711
6. The Need for a Strong State Program in Public Education, by Florence King	716
7. The Joint Program of Public Education for Hospitals and Blue Cross Plans, by R. F. Cahalane	722
 Chapter XXX. Volunteers and Volunteer Service	
1. Integration of Volunteer Hospital Service, by George P. Bugbee	727
2. A Timely Round-up of Opinion on Working with Volunteers, by Oliver G. Pratt	731
3. Thirteen Directors Say "Organization" Is Key, by Pauline L. Lehrburger	733
4. Hospitals Join with Michigan Schools in Health Course, by Genevieve R. Soller and Gordon Davis	735

PART FIVE

Chapter XXXI. Group Hospital and Health Insurance

1. One Health Insurance Agency, the Government; Part One of a Discussion, by A. J. Altmeyer	741
-------------------------------------------------------------------------------------------------------	-----

2. Let Government Help, Not Kill, the Voluntary Plan; Part Two of a Discussion, by E. A. van Steenwyk	747
3. The Place of Compulsion in Prepaid Health Care, by N. W. Faxon, M.D.	753
4. A Practitioner's Viewpoint of Medical Service Plans, by Channing Frothingham, M.D.	761
5. An Explanation of Canada's Health Insurance Proposal That Has Hospital Support, by G. Harvey Agnew, M.D.	766
6. Voluntary Medical Insurance Plans, Their Extent and Limitations, by Margaret C. Klem	771
7. Why Medical and Hospital Service Plans Should Be Jointly Operated, by Jay C. Ketchum	780

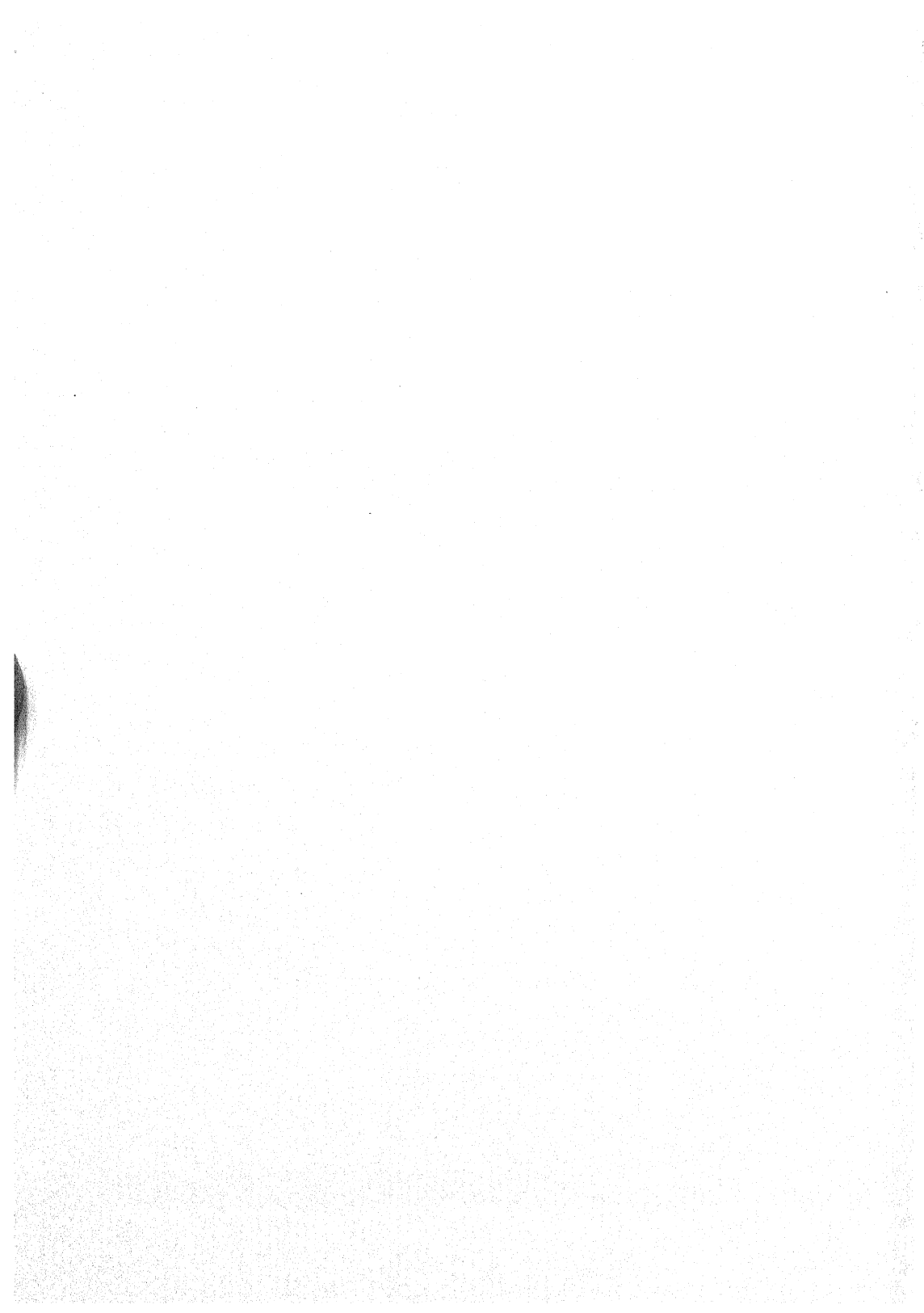
Chapter XXXII. Public Health

1. Public Health Need Not Mean Regimentation, by Morris Fishbein, M.D.	785
2. As the Basic Emphasis on Public Health Shifts, Hospitals Must Share in Community Problems, by Hugo V. Hullerman, M.D.	789
3. Practical Ways to Promote Public Health, by John L. Procope	794

Chapter XXXIII. Regional Planning of Hospital Services and Facilities

1. Population Density in Relation to the Size of Hospital Communities, by C. Horace Hamilton	799
2. Population Changes and Public Health Planning, by G. F. McCleary, M.D.	806
3. Opportunity for Collaboration in Health Planning, by James M. Langley	810
4. For Better Service Michigan Produces First Rural Hospital Council, by Forst R. Ostrander	812
5. Making the Regional Council Pay Dividends, by S. A. Ruskjer	814

PART ONE



CHAPTER I. CURRENT TRENDS

1. Some Trends of Today That Will Help Shape Tomorrow's Hospital, by Fred G. Carter, M.D.*

IF a single criticism were to be leveled at the voluntary hospital system of the United States it might well be aimed at the tendency to overemphasize the importance of the individual institution, which in some communities has led to overlapping and duplication of both effort and facilities.

For the last twenty-five years or more in this country we have emphasized the importance of consolidating our charitable fund-raising efforts, but we are only beginning to recognize a parallel responsibility having to do with greater emphasis upon a more effective organization and utilization of other community activities.

If it is socially important and desirable that we pool our funds to look after social needs, it is equally if not more important that we pool our thinking about and our handling of the problems of the field. Community fund officials more and more are acting as agents in bringing together and setting up permanent committees for collecting, evaluating, and processing the problems peculiar to identifiable segments of the social structure. One very important area in which a desirable type of coordinating influence is being felt is the health field.

If this sort of thing is done without instituting or trying to impose an overpowering and overshadowing control of the agencies involved, worthwhile progress is assured. Under any other conditions both personal and group initiative will be stifled, general purposes will be defeated, and progress will be stymied.

For many generations those without the means to pay for hospital care have looked to both the voluntary and the tax-supported hospitals for service when they needed it. In communities where tax-supported facilities did not exist, officials have pleaded governmental poverty when asked to pay for the care of those who by law—and rightfully—are their specific charges. They have reasoned that the hospitals dare not refuse care to those in dire need. They have depended upon the humanitarianism of hospitals to cover up their own inhumanitarianism. What they have termed community poverty is nothing more or less than utter lack of the proper degree of acceptance of community responsibility.

Hospitals as a group have been afraid to raise the governmental rate question, partly because of a fear of losing their tax-exempt status. If ridiculously low rates for the care of indigents are a *quid pro quo* for tax exemption, many hospitals would improve their status by submitting to taxation and then insisting on full costs—including taxes—for services rendered to those for whose care governments are responsible.

If hospitals are going to be taxed let them be taxed at a fair rate, not at any arbitrary rate that government officials see fit to levy, which is exactly what happens when absurdly low rates for the care of indigents are forced down their throats. The laws of the various states exempt non-profit hospitals from taxation but those laws specify no favors in lieu of taxes, nor do they specify that government officials

* Adapted from *Hospitals* 18:35-37, Oct. 1944.

must take it upon themselves to extort taxes through the low-rate subterfuge.

Fortunately there appears to be a growing tendency for governments to pay costs for the care of those for whose care they are responsible. The Children's Bureau in Washington is pioneering the way among federal agencies by paying operating costs plus 10 per cent for the use of capital for the care of its charges. It is hoped by hospital people throughout the country that this type of financial relationship between hospitals and governmental agencies will be extended because it will be the means of relieving a very substantial strain on the finances of hospitals if it is generally recognized and made effective.

The chief difficulty connected with the application of the cost principle in determining rates for hospitalization is found in the lack of exact knowledge as to what constitutes exact cost, and this is by no means a simple problem. It will be partly solved when hospitals adopt uniform accounting methods and learn to talk the same accounting language.

Our concepts of the place and purpose of education in our lives have undergone radical revision in recent years. More than ever before we are coming to realize that education is a never-ending, day-by-day, life-long process with innumerable ramifications. It is no longer something to be laid away and forgotten, no longer a chapter in our lives to be closed with mixed emotions. It is coming to be looked upon as a continuous process of adjustment to life and living. The academic distinctions between education and training are being forgotten and attention is focussing on the better all-around integration of the individual into the part he must play.

Hospitals can't escape the influence of these important educational developments. Provision will have to be made in a very

definite and concise manner for training every last employee who comes into the hospital to work. This sounds like a formidable and expensive task, but as a matter of fact the hospital won't be able to afford *not* to train its employees in the most minute details of its work.

The increased efficiency of the hospital resulting will pay for the effort many times over and will justify the higher wage standards which are bound to prevail in the field. The space and equipment needs of this situation must be kept in mind when new hospital construction is undertaken.

During the last twenty-five years the life span has increased rapidly until we have reached the point where the average expectancy is about 64 years. Relatively and actually, the numbers of older people in the country have increased and hospitals are finding themselves confronted with increasing demands for services for older people. The medical profession is already recognizing these possibilities and the obligations which go with them of preventing older people from becoming burdens to themselves, their families, and their communities.

Research and experimentation are under way and gradually the science of geriatrics is crystallizing as an important medical specialty. Hospitals must prepare to render to these older people care of a type somewhere between acute hospital care and domiciliary care.

Hospitals should be on their guard against overextending facilities for the care of children. Proper feeding, vitamin therapy, improved public health nursing, advances in chemotherapy, immunization on a broad scale, and improved ambulatory and home care have helped to eliminate much of the need for the hospitalization of children, except in those instances where surgery is needed. Currently and for the

future, perhaps we should adjust our institutions to a much lower incidence of occupancy for diseases of children.

With military personnel returning home from all quarters of the globe, bringing with them diseases with which we are totally unfamiliar in this country, new problems of all kinds may confront us. Tropical diseases transplanted to the home country may flourish and increase the need for hospital facilities of various kinds. Developments may be slow in coming in this area, since it will take some time for such diseases to gain any kind of foothold. Perhaps this threat is more fancied than real but it is certainly something to be kept in mind.

Employer-employee relationships appear to be channeling new grooves in the field of human relationships. The wide gaps between labor and management are narrowing down to a point where there now appears to be a real hope for a basis of common understanding. Management is taking an increased interest in the welfare of its employees and as a result is finding that the latter have much to contribute to the success of management. Hospitals too are finding that considerate treatment of employees is worth all that it costs. Personnel departments are slowly coming to occupy just as important a place in the hospital economy as they have in industry.

Hospitals which do not give a great deal of thought to personnel problems are failing to account properly for 60 per cent or more of the money which they spend. The day is coming, if it is not already here, when hospitals will have to pay salaries commensurate with those paid in other fields in normal times, and under such conditions hospitals must learn to spend their money wisely and efficiently.

Straight cash salaries are finding their way into the hospital economy, replacing the old practice of furnishing full or partial

maintenance as a condition of employment. With employees living out in the community and coming into the hospital every day to work just as they do in other forms of employment, suitable locker and rest room space as well as recreational and restaurant accommodations must be provided.

The Committee on the Cost of Medical Care has made two important recommendations which take on added significance as the years go by. One has to do with group practice of medicine in all its phases, and suggests that groups of physicians, dentists, nurses, pharmacists and others be organized—preferably in connection with hospitals—for the purpose of rendering complete hospital, office and home care.

Group practice has found some adherents during the past decade although organized medicine has been outspoken in its opposition. In spite of this opposition, many groups have met with popular favor, if one is to believe the accounts of their performance appearing in the popular magazines from time to time.

Probably about 40 per cent of the members of the medical profession of the United States are now enlisted in the armed forces where they are learning to work in groups with splendid equipment and facilities. These young men—and it is usually the younger men who determine the trends—will come out of military service with ideas of practice by organized groups.

Similarly more than ten million young men and women will come out of the service having had experience with a well-organized complete medical service. It is to be expected that similar types of service, shorn of military red tape, will be sought and demanded for themselves and their dependents when they return to civilian life after the war.

The hospital has been referred to as the

"health center of the community" and it is logical to expect that it will come to be looked upon as the nucleus for activities having to do with the group practice of medicine. Leadership in this movement will and should originate with local medical groups rather than with hospitals themselves, but hospitals must be ready to cooperate in all possible ways with this or any other acceptable movement that has for its purpose the general improvement of the quality and distribution of medical care.

The other recommendation of the Committee on the Costs of Medical Care has to do with placing the costs of medical care on a group payment basis through insurance, taxation, or both. Probably the most significant development of the last quarter century in the field of medical economics is the Blue Cross Plan for the group payment of hospital bills. More than fifteen million people are enrolled in these plans, and their growth continues at a lively rate.

Their success has stimulated widespread interest in the extension of the prepayment principle to the coverage of physicians' bills as well as hospital bills. Nearly every state in the Union finds its medical profession wrestling with this problem. Many plans are in operation, some sound, some decidedly unsound, but the ground-work is being laid.

Eventually out of the experiments under way, a generally acceptable pattern will emerge which will permit the average person to budget against medical care as well as hospital care. The person with the low income is the one who represents the chief difficulty in the situation, and it is in this field that governmental and voluntary effort must combine their forces to produce an acceptable level of care for the underprivileged.

Through the years of strife and argument one fact stands out clearly and overwhelm-

ingly: People want more and more, better and better medical care, and within their financial limitations they are willing to pay for it. A recent poll conducted by the magazine *Fortune* is outstandingly significant in this respect. Of the people polled, 74 per cent believe that the Federal Government should collect enough taxes after the war to provide medical care for everyone who needs it. The majority in favor of universal medical care was even greater than the majorities favoring old age pensions and jobs for all who are willing to work.

The Wagner-Murray-Dingell bill has served as a springboard for a tremendous amount of discussion of this whole question even though it may be only a smoke screen to obscure activities that are quietly shaping the future of medicine. The mere growth of the hospital movement in this country in recent years is further evidence of a spreading universal interest in medical care.

The potentiality of the health field as a buffer against unemployment in the post-war period is also something to be reckoned with. Thus far we have only scratched the surface in uncovering the possibilities inherent in this situation.

The hardships imposed upon hospitals during the war have forced all of us to do a great deal of thinking about our methods of operating hospitals. Possibly the time has come when we must change our concepts and switch emphasis from individualized patient care based to a large degree on the patients' desires as to type of accommodation, to a more specialized type of care based on actual medical and nursing needs. Perhaps our hospitals should be reorganized to recognize services based on relative intensity of care needed.

This might lead to a zoning of activities with definite gradations of care to meet the needs of various situations and classifica-

tions of patients. How far such an arrangement might be carried is problematical, but certain tendencies in the directions indicated seem to be in the making. Without going into the matter too deeply, it is not difficult to visualize a hospital zoned to furnish definite levels of care for diagnostic, postoperative, postpartum, acute medical, isolation, recuperative, convalescent, and ambulatory cases.

War necessities have demonstrated previous statements that 50 per cent of nursing duties were of a nonprofessional nature—to be very conservative. We have seen women trained in as little as eighty hours do in creditable fashion numerous tasks which previously many nurses had claimed should be done only by professional nurses.

Hospitals cannot afford to pay professionals salaries for nonprofessional work. Some kind of adequate bedside nursing is the backbone of good hospital service, yet our nurses are being educated to the point where they have an investment that does not permit them to do the simpler types of nursing. When hospitals pay professional salaries for such tasks they are paying for talents that are not needed and are not used.

Some one, preferably the nurses themselves, must sift out of nursing all the activities which can be carried on by people of nonprofessional status. What we need in the hospital and health fields today is a less

highly trained group for routine duties and a more highly trained group for medical technical services of all kinds. A vast field awaits cultivation in the latter area and the nurses are the logical ones to do the cultivating.

Members of the medical profession are becoming increasingly dependent upon hospitals in assembling the tools necessary to practice good medicine since their cost would be prohibitive for the individual practitioner. In military medicine, the importance of objective determinations is being emphasized.

Why waste a doctor's time, for example, doing a complete physical examination of a chest, only to miss a condition which a good x-ray examination would reveal with an expenditure of not more than one-tenth the professional time? Simple laboratory tests may be fully as revealing in the diagnosis of a number of disease conditions.

This is heresy from the standpoint of medical teaching, but all accessory aids to the physician are being utilized to the greatest possible extent in military circles and this trend certainly is not going to be de-emphasized when medical officers return to civilian practice. Hospitals will have to meet these needs by devoting more and more space and personnel to the use of the so-called adjunct services of medicine.

2. Content and Administration of a Medical Care Program; Unmet Health Needs, *by I. S. Falk**

It is the history and the proud tradition of modern public health that it is foresighted. It has attained its present high level not through accident—though unforeseen developments have played a part—but primarily through careful study and planned action.

Public health progress has depended on

periodic review of accomplishments, planning to meet unmet needs, experimentation, concurrent evaluation of activities, and repetition of this time-tested and productive sequence.

This basic method of the public health

* Adapted from *Am. J. Pub. Health* 34:1223-1230, Dec. 1944.

campaign is being constantly applied, operating for the most part in quiet ways—without drama or crisis. Occasionally it is applied in more unusual fashion—as when some event or circumstance provides special reason to take stock or to meet new needs. An epidemic or some other catastrophe has sometimes precipitated action, so that something good and useful for the welfare of society was fertilized by the ashes of tragedy.

Today, American public health is confronted with unusual circumstances. The times demand unusual action—to make a special appraisal of unmet needs, to recognize the barriers to health progress, and to plan courageously and adequately how to level those barriers and how to meet those needs.

It is conceivable that, in a world in flames and disorder, we shall make a transition from war to peace without serious disruptions and by smooth and gradual stages; and it is possible that public health practice in the United States will pursue the even tenor of its way. But it is also possible that our society will be wracked by social and economic strains, and that the machinery and the practices of our health services will be deeply affected.

For a decade and more we have been hearing with increasing insistence that people have learned of the new and enlarged possibilities for health and that they demand a share in these opportunities. This demand has now swelled to large proportions. We of the public health profession should not fear and evade it; we should welcome it. And we should also note that the new public demand for health service is not so much in the traditional patterns of public health, with its primary concern for premature mortality, as in the newer patterns of social security, with its emphasis on assurance of needed medical and hos-

pital care, and protection against the suffering and the economic burdens of sickness, disability, and dependency.

We have given some thought and attention to this subject in our Association. It is timely that we give it more.

For some generations, public health administration leaned primarily on death rates to measure need and on changes in these rates to measure accomplishment. The technical validity of that practice rested upon two assumptions, both more generally implicit than explicit: first, that public health was chiefly concerned with preventing the occurrence of preventable fatal diseases; and, second, because fatality rates were relatively constant, that changes in death rates reflected trends in the incidence of both illness and death. In the years when the greatest concern was with preventable infectious diseases, these assumptions were substantially valid; mortality rates were useful as primary indexes of health, and reductions in those rates were indexes of progress in the public health. But time marched on.

It is a striking fact—yet still widely unrecognized—that most sickness and most deaths in our times result from causes that we cannot control in the sense of preventing their occurrence. One has only to scan a list of the principal causes of either morbidity or mortality to see this plain truth.

We take great pride in the reductions that have been effected in the death rates from about 17 or 18 deaths per 1,000 at the beginning of the century to about 11 per 1,000 in 1940. But we often forget that about 70 per cent of that reduction had already occurred by 1920, and practically 100 per cent by 1930. Such further reductions as have occurred from certain causes and in some age groups are offset by increases elsewhere. Or, to take the matter in closer perspective, the prototypes of dis-

ease controllable by public health methods are typhoid and paratyphoid fevers, diphtheria, diarrhea and enteritis, measles, scarlet fever, whooping cough, and tuberculosis. Their aggregate death rates declined by about 83 per cent from 1900 to 1940; but about 56 per cent of that decline had already occurred by 1920, and about 84 per cent by 1930. It is true that much yet remains to be done in controlling these infections and we should press home their more complete control or eradication. We need to remind ourselves, however, that this group of preventable deaths was directly responsible in the last census year for only one death in twenty-two. All other causes of death declined by less than 25 per cent in the first forty years of this century; some among them show increasing death rates. We should be getting on with the job of tackling them as prevalent causes of disease and death.

The most common plagues that afflict us now are not preventable as causes of sickness or premature death by the traditional public health methods of community-wide control, or they are not preventable at all with present knowledge, methods, or skills. And, because of their concentration in the higher ages, the prospective aging of the population will increase the relative prevalence of these nonpreventable illnesses.

Yet—if I may speak critically—we still act by patterns of public health practice as though preventable infectious diseases were our greatest problems, while we concern ourselves relatively little with heart disease, pneumonia, rheumatism, and other diseases which are vastly more prevalent and cause far more suffering and damage to human resources. These diseases which we cannot wholly prevent need early detection and accurate diagnosis; the patients need prompt, comprehensive, and continued care—home, office, clinic, hospital, labora-

tory, and other services—from the physician, dentist, nurse, laboratory expert or pharmacist, and the host of others who stand behind them and support them. With these services public health has been relatively little concerned, because it has regarded medical care for the individual as being generally outside its field. In the past ten or fifteen years, the generously given advice “go see your family doctor” has been a feeble and futile substitute for a useful and effective program to assure the actual availability of services to those who need them.

This does not mean that public health practice has followed a consistent pattern of avoiding medical services; witness the long history of medical intervention by public health agencies in the case of tuberculosis and the more recent activity in respect to mental diseases, cancer, the venereal diseases, and the pneumonias. A few other examples, of uncertain generality, might be cited. Yet it still would be correct to say that public health practice has done and is doing little—very little, indeed, by comparison with the size of the need and the opportunity for useful service—about the commonest and most important causes of morbidity and disability; it still largely neglects to assure the availability of those services that would alleviate sickness and suffering where it admittedly cannot prevent the onset of disease.

In the past two or three decades, public health practice has shown a strong tendency to shun individual services. In the same period, the public has become increasingly insistent in its demand for more and better individual services. These diverging trends explain in considerable part the continuing inadequate financial support of local public health activities. Lacking the public support that comes from the direct provision of personal service, public health

officers have generally had an uphill fight in defending increased budgets for services that are for the most part vague and impersonal to the taxpayer.

Everywhere about us are people who have learned the new wonders that science holds for health. Their demand for services that will heal the sick is not to be met by new promises to prevent other illnesses that have not yet occurred. This demand has now reached such proportions that it cannot be much longer denied or ignored, especially because millions of people have learned there are ways of meeting the problems of costs that restrict the availability of needed services. There is now substantial agreement, nationwide, that action will soon be taken. The public health professions cannot stand aloof.

The paramount issue before public health leadership in the United States concerns the place of medical services within the framework of public health practice. We are all agreed that the first function of public health is to prevent. But must prevention deal only with the initial occurrence or onset of a disease? Or shall it also mean that disease which cannot be prevented shall be recognized early in its course and treated promptly and effectively in order that human suffering shall be avoided; that the period of illness shall be shortened; that the course of the illness shall be moderated, shall not go on to more serious sickness, and shall not lead to further scarring and injury; that illness shall not lead to disability; that disability shall not be more prevalent than it has to be?

The practical import of these contentions is that medical care must be regarded as an integral part of a broad program of public health, one that embraces not only traditional community-wide services and special provisions already developed for particular diseases or special population groups, but

also general diagnostic and treatment services for all members of the community. This involves the availability of medical care of high quality, in early as well as late stages of disease, and ready access to the needed services throughout the entire period in which they are required. It also involves coordination of the diagnostic and treatment services with the more strictly preventive services—statistical, sanitary, laboratory, policing, educational, and administrative—and with the services for rehabilitation of the handicapped and the disabled. Also, having regard for the interrelations between poverty, disease, and dependency, the broad health program involves coordination with provisions for maintenance of income and for education, good nutrition, healthful housing, and other social purposes that are widely accepted as being essential or important to health.

The first unmet health need today is the design of a new public health program, adequate in both scope and content for our times.

If we are to enter upon a program of positive health and medical care for the people of this country, we must come to closer grips with the needs that are to be met. While taking into account the problems resulting from the war, we should hold them in perspective by reference to prewar circumstances and postwar outlooks.

How much illness is there ordinarily in our population? No one knows exactly, especially because the amount of illness found in any group depends upon the intensity of the search made to discover it. Improved and enlarged reporting of morbidity is one of the important unmet needs. The deficiency has been partly overcome through special studies. By carefully combining the evidence from extensive and intensive surveys, it appears that on an average day at

least seven million persons are unable to carry on their usual pursuits because of disabling illness. Under conditions of careful reporting, the incidence of recognized illness is about one case per person a year, including in this figure both disabling and nondisabling illness, but omitting most minor illnesses and undiagnosed conditions. About one person in five suffers from a chronic disease or a major physical defect which needs medical attention. Many of these conditions are caused by the so-called "degenerative diseases" which so commonly prevail in middle age and in the more advanced years, and which usually need protracted and expensive care.

Whenever representative groups in our population are carefully examined, with the physician's skill supplemented by laboratory tests, vast amounts of neglected ill health and physical defect are uncovered. The large proportion of presumably healthy young men who were rejected for general military service because of defects and handicapping conditions is now well known; it came as a surprise only to those impressed by progress in the death rates and in the average expectation of living measured at birth or in the early years of life, and to those uninformed of the large number of people who do not receive the medical services they need.

There are many reasons why people who need medical care do not always receive it. The underlying causes are primarily economic. Medical care costs money. Illness and its costs are unpredictable for the individual, though they can be forecast with reasonable accuracy for the large group. The annual burden of sickness costs falls mainly upon a small proportion of the population, and usually comes unexpectedly upon the individual or family. In planning for better medical care, the most important characteristic of medical costs

which must be surmounted is their uneven distribution among individuals and families.

Low-income families have more than average amounts of illness, larger and more frequent need for care, and they spend a proportionately larger share of their income on sickness, yet they receive far less medical service than the well-to-do and the wealthy. For many, the costs constitute a barrier which prevents the receipt of needed care or any care at all. Below the level of the well-to-do, the percentage of illness which is without medical attendance rises steadily as income declines. Inadequacy of care and lack of care are especially widespread among the millions who live in rural areas. Those who are most familiar with rural conditions assure us that "modern medicine as we boast of it today is an urban phenomenon." And Negroes are generally worse off than white persons. It is easy to recognize how the vicious circle runs—illness causes poverty; poverty is associated with unattended and neglected illness. Which is cause and how much is effect cannot always be disentangled. We can be sure, however, that the circle needs to be broken from outside its perimeter.

These generalized and summarized statements about sickness and medical neglect may be unimpressive to those not accustomed to think in statistical terms. If time permitted, the facts could be made more specific by referring not to all sickness or all kinds of medical care, but to tuberculosis, cancer, pregnancy, heart disease, pneumonia, and other specific causes of illness, or to medical, dental, nursing, hospital, or laboratory services.

It is so frequently repeated that the poor and the rich get good medical care, or the best medical care, that many have come to believe it. No doubt, one can see in New

York City numerous examples to illustrate receipt of the highest grade of care by the indigent poor, given by some of the ablest physicians in the city, in well-equipped hospitals and clinics operating at high levels of skill and efficiency. But who among us does not know that very few large cities and fewer smaller cities and almost no rural areas have made the provisions for the medical care of the poor that are to be found in New York. Those particular individuals among the poor so fortunate as to be served by leading clinicians in "free" clinics and "free" hospital beds may be receiving service of high quality. But this does not alter the fact—attested by scores of health or welfare studies—that in most urban areas and in nearly all rural areas poverty and lack of medical care go along together. It was true three-quarters of a century ago; it is still true today, despite the widespread circulation of mischievous catchwords and clichés to the contrary.

The correlation between family income and the adequacy of care received has a parallel in the correlation between community income and the availability of health and medical services.

At the beginning of the war, the United States as a whole was relatively well supplied with physicians. But the country-wide average of about one physician to each 750 people concealed wide variations from region to region, from state to state, and among urban and rural areas within states. The ratio was lower than average in low-income and in rural or sparsely populated areas. Specialists even more than general practitioners were concentrated in large cities and wealthy communities.

The lack of physicians in rural areas has been aggravated by the war; recruitment for the armed services was disproportionately heavy from states and areas least able

to spare them. It is probable that, with present methods of providing and paying for medical care, the return to peace and the demobilization of the armed forces will not bring improvement over the prewar situation.

Maldistribution was even more marked among the dentists and probably among the nurses and hospitals. Where there was wealth, there were more or less ample personnel and facilities; where there was poverty, there was less or—in the extremest cases—even nothing.

Paying for medical care through individual purchase at the time the service is needed means inadequate care, insecurity, and burdensome costs for the patient. It also limits the financial security of the practitioners and institutions that furnish the service. The result appears in large variations in the incomes of practitioners, in low incomes for those who serve people of small or modest means, in inadequate financial support of hospitals, and—as noted before—in the maldistribution of professional personnel, hospitals, and other agencies.

The adequacy of public health services and facilities is also related to the prosperity or poverty of an area. Full-time, organized, and adequate public health agencies are scarce enough the country over; they are especially deficient where wealth and income are less than average.

The unmet health needs of today include, in addition to those I have mentioned, a few others of large importance. The need to strengthen the facilities for the education and training of personnel, to bring added support to research that will widen the boundaries of knowledge, to provide financial and technical aid for the construction of hospitals, health centers, and other facilities, I note only in passing. The need to improve quality of care, and to

assure economy and efficiency in the provision of service, open the large and controversial questions which surround proposals for the organized group practice of medicine. This is not the occasion to examine the issues at length. But this much may be said: No solution to the financial problems of medical care has to wait until the group practice questions have been finally answered. And no solution would be a good one if it either "froze" the *status quo* of individual practice or failed to aid and encourage widespread and constructive experimentation in the methods of providing care.

This brief review of unmet health needs may be summarized in even more general terms. The first need is for more adequate services than we have yet developed to prevent the occurrence of illness—including community-wide preventive services, such as modern public health practice already furnishes more or less comprehensively in the more progressive and wealthier areas or communities; and individual preventive services, perhaps best exemplified in maternity-advice centers and well-baby clinics. The second need is for measures to assure ready and equal access to medical services for illness in which the occurrence is not, or cannot be, prevented but in which the duration can be abbreviated, the suffering reduced, the severity moderated, and the after-effects either prevented or minimized. Such measures must provide for development of the social institutions essential to stable financing and orderly administration of the services to be included within a comprehensive program of medical care. Each of these two broad classes of need can be met only through a variety of provisions, including means of dealing with deficiencies and maldistribution in personnel and facilities.

Let me emphasize the futility of discussions, like those which have been common in the recent past, as to which of the two programs is the more important, or which should precede and which should follow. Both are necessary; each is urgent; one complements the other.

It is fair to ask whether, as a nation, we can afford to meet the unmet needs that have been outlined. This, in effect, asks whether we can afford the price of that level of health and that freedom from suffering which modern science and skill have brought within our reach.

Before the war, total expenditures for medical services were about four billion dollars a year (exclusive of the cost of medical care for the armed forces). About three-fourths of this total was spent by patients and their families, the direct consumers of medical care. Four to 5 per cent was contributed by industry and philanthropy. The remaining 20 per cent was spent by federal, state, and local governments.

The three billions spent by the American people in direct family expenditures for medical care represented about 4 per cent of consumer income. Families in the lowest income groups spent a larger average percentage. Expenditures of no more than these amounts, but under arrangements which assured the widespread availability of medical services, could vastly improve the adequacy of care and greatly advance the public health. If only these amounts were spent, but in such a way as to enable each family to pay an average amount, year in and year out, the burden on consumers would be far less than it has been. These amounts could adequately compensate those who provide the services under arrangements which would assure them of regular incomes and, at the same time,

avoid the unconscionable situation of having doctors without patients and sick people without doctors.

The prewar level of expenditures for medical services, public and private, may not, however, have been fully adequate to pay the cost of services equal to our modern needs and standards. In the years ahead, especially if our economy operates with stability and at a high level of employment, our total expenditures for health and medical services might advantageously be expanded from the four billion dollars of prewar years to as much as five, six, or even nearly seven billion dollars a year under arrangements that will make adequate services and care available to the entire population. Those larger amounts for the future might be only 6 per cent of national income. This should be compared with the 5 per cent of national income (a total of about three billion dollars) expended about ten years ago in times of deep economic depression when the degrees of economic freedom and the margins of flexibility in our expenditure patterns were very low indeed. These and all such figures should be measured against the ten billion dollars commonly accepted as a conservative estimate of the direct and indirect annual costs of sickness and disability.

Like the growing and expanding social services generally, a strong health program is a necessity in every modern economy, because national wealth and well-being depend directly upon labor and productive work. There was a time when the social services were chiefly the gift of a few to the many, the charity of the rich to the poor. But today—and it will be more surely true in the future—the social services are for all, to be provided by the wealth and productivity of all. Moreover, the social services generally and the health services

specifically are not any longer to be financed by the "tax-paying geese" that lay golden eggs; they are to be financed from the wealth of the entire society they serve. Modern society has been painfully and tragically slow in learning that the wealth of nations depends more upon the amount and the quality of the work we do than upon the amount of money we can avoid spending. As surely as health is prerequisite to work, so surely is it sound to earmark and spend for health up to the maximum that brings substantial returns.

Measured as a percentage of either family income or national income, we can afford health. In the words of a popular slogan, "it costs no more"; indeed, it costs less. We can less afford the higher price of sickness which we know how to prevent and of suffering, disability, and dependency we need not have. We are spending lavishly now for sickness and its consequences. We can resolve to spend wisely and productively for health. Thus, within the limits fixed by available knowledge and skill, by our human and material resources, by our courage, energy, and vision, comprehensive and adequate health and medical services for all are within our means.

The economic barriers to adequate health and medical services are inherent in our present hit-and-miss methods of meeting the costs; they are not inherent in the nature of the services that are worth having, or in the nature or the capacity of our economy. If the services continue to be inadequate, the fault lies not in the stars but in ourselves.

The unmet needs can be met. How they will be met—and how rapidly—will be influenced by the role the public health profession will choose to play in planning and guiding a program of medical care for the nation.

3. Hospitals Now and After the War, by *Basil C. MacLean, M.D.**

Forty years ago medicine was practiced largely from a little black bag. There were many medical schools, but few good ones. There were not many hospitals—about one third as many as we have today—and they were just beginning to be used as effective instruments of health. This was before the Carnegie Foundation financed the investigation which led to a housecleaning in medical education and before the American College of Surgeons started its much needed crusade for better hospitals and better hospital care. It was still the day of buggies and barbed wire fences—that period extolled so much by some modern writers who describe so vividly the surgery done on a kitchen table and the high forceps deliveries done with a shoehorn in a snowdrift.

Diverse and many influences are responsible for the widening of the hospital horizon during the first four decades of the century. Foremost are the scientific advances of medicine which have made the hospital more an instrument for cure than for care. Existing hospitals were enlarged and new hospitals were built as they became recognized necessities to national health and as health projects began to attract much of the philanthropy which previously had been poured principally into religious and educational enterprises. Hospital costs increased. Construction costs multiplied as a desire for the palatial often outweighed a need for the practical, but, more important, the costs of operation grew with the growing demands for improved facilities for diagnosis and treatment. Few people cared about the cost of hospital care when, in the treatment of an acute pain in the abdomen, magnesium sulphate shared the honors with the mortician, or when infant diarrhea was blamed on a good god rather than

on bad milk. The therapeutic simplicities of the sulphur-and-molasses era gave way to the more complex but much more effective agents of medicine and surgery. Health became more a purchasable commodity. It was realized, however, that the economies of medical and hospital care had lagged far behind their scientific progress. As quality improved, there was a natural demand for quantity.

The cost to the nation was comparatively low in the light of the cost of cosmetics and chewing gum, but the cost to the individual was commonly too high. It was high because it was sudden, unpredictable, and unplanned for. Then, in the hysterical and historical twenties, studies were made—not by starry-eyed do-gooders, but by sincere and honest people who saw a problem and sought a solution. It was obvious that production was good but distribution was bad. Among other things they urged in their report that financial burdens be shifted from the few to the many. Bitter criticism followed, of course, because there were implied some changes in the existing order.

Then came the birth of the voluntary hospital insurance program. Assailed at first as the forerunner of fearful things, it now embraces over seventy approved Blue Cross Plans with an enrollment of almost ten million persons in the first ten years. It has justified a prediction which I ventured to make at a meeting of the American College of Surgeons in St. Louis in 1932, that while "not a panacea for all our ills," it seemed to offer at that time "the greatest promise of delivery from economic pain." Frequently I have referred to it publicly as the most important development in the economics of hospital care dur-

* Adapted from *Hospitals* 16:13-18, June 1942.

ing our generation and even the most carping critic must surely admit that although little has been done, except in Michigan, to lighten the financial load on individuals for medical care, a sincere and successful attempt has been made to provide hospital care on an inexpensive and budgetable basis. The total increase of enrollment under the Blue Cross Plans has been greater each year, but one observes that there are plans and plans. In some communities and in some states, active and intelligent direction has made this type of protection available to a large segment of the population and promises much greater growth. In others, however, the plans seem content to cater only to the comfortable classes. I hasten to add that this apparent complacency is not always due to lack of initiative by the directors of the hospital insurance plans. Frequently it is the direct reflection of an apathy, a myopia, and even an antagonism on the part of participating hospitals. Too often the present rate of daily payment eclipses the future social significance.

What is the future of voluntary hospital service insurance? Some speak optimistically of extending it soon to cover half the population of the United States. Many of its most earnest friends and enthusiastic supporters, however, do not believe that on a nation-wide basis and even allowing for prospective membership in ward service plans, more than one quarter of the people at the most can be enrolled within a reasonable period of time on a voluntary basis. The coverage is uneven. Large areas are untouched and regarded by many as untouchable.

Although hospital endowments have not loomed large in the national picture of hospital care at any time, they have represented a substantial part of income in many of the best teaching and other voluntary hospitals. A shrinking of return on invested

funds during the past ten years has been experienced by all nonprofit institutions, and in many instances hospitals have been compelled year after year to use capital funds to meet operating deficits. The opinion has been expressed by experts in the field of fund raising that increased taxation means decreased philanthropy. Large fortunes will be less common and large gifts or bequests to charitable institutions will not be frequent. There may be a broadening of the base of community fund support but the large gifts are the backbone of any campaign.

Governmental units have assumed more and more responsibility for hospital care during the past twenty years. The last report of the Council on Medical Education and Hospitals of the American Medical Association tabulates data of hospitals of this country, and one observes that, while voluntary hospitals have 70 per cent of all "general hospital" beds, these beds are only 19 per cent of the total number of hospital beds. The proprietary hospitals, although numerous, are not important in a consideration of total bed capacity. In the past year the total bed capacity increased by 98,136, but 93 per cent of this increase was in government hospitals. This increase is not all in facilities for chronic patients. In the past ten years, the total beds in government hospitals increased 50 per cent while the total in nongovernment hospitals increased 8 per cent and during the same period, 1931-1941, the percentage increase in total number of admissions was twice as great in government as in nongovernment hospitals. Year by year the units of government have made more provision for the patients who formerly looked to the voluntary hospital for their care.

Frankly, my concern is primarily for the voluntary type of hospital. It has stood between the government or public institu-

tion on one hand and the proprietary or private hospital on the other, combining public responsibility with private initiative. With an inescapable increase in the cost per unit or day of care, however, and with an inevitable decrease in contributed income, the voluntary hospital must seek new sources of income or slip gradually into that class of institution which cares only for people who can pay. Indeed, such a change in the character of many voluntary hospitals has been observed during recent years. An editorial in a recent issue of the journal, *Medical Care*, draws attention again to this problem and mentions that "No one who views the network of voluntary hospitals throughout the United States and appreciates their ultimate connections with religious, fraternal, political and social elements in American life, can, in sober moments, fear that these institutions will disappear from the American scene. These hospitals are justly proud of their tradition of service to all classes of the community, rich, middle groups and poor," and further, "If their community service becomes low or vanishes and they care chiefly for the comfortable classes, their distinctive status and their legal immunities will be in peril. They cannot live on tradition." That exemption from taxation may, in the future, be more directly related to community service rendered by a hospital is evidenced by recent decisions of the Treasury Department to obtain each year a financial report of every hospital. There is further evidence that a distinction may be made between the bona fide voluntary hospital and the institution which is masquerading under the cloak of charity or nonprofit association.

Five years ago approximately 10 per cent of the total income of voluntary hospitals was received in gifts from individuals and agencies towards current expenses and

another 10 per cent came from governmental units for the care of medically indigent patients. The former is decreasing and the latter is increasing. Isn't it significant that the last Business Census of Hospitals, 1935, showed almost one third of all operating income for general and special hospitals of the United States was received from federal or other governmental sources?

Much of the credit for encouraging payment by government to voluntary hospitals on a per diem basis should go to the Joint Committee of the American Hospital Association and the American Public Welfare Association. This committee has defined standards and units of care and has formulated principles by which the voluntary hospital can utilize and control its facilities for needy patients and receive payment from government for services rendered.

It seems apparent that some system of per diem payment through the intermediary of government provides the best means of preserving the voluntary hospital. At once, of course, the cry is raised that if government pays the piper, government will call the tune. At least it would be logical for government to call the key in which the tune is played, and any reasonable person should recognize that in the spending of money government should exercise some caution and scrutiny. Critics of government are bitter in their condemnation of almost every effort of government to act or supervise in the interest of the public. Invective is piled on invective and the range is from bureaucrat to communist and back again to bureaucrat. It must confuse strangers to our shores who have believed that we have achieved a system of representative government in a democracy. Indeed, it is difficult for visitors to this country to understand the traditional distrust by the nongovernmental hospital for the gov-

ernmental one. One hears the phrase, "He has a public point of view," applied as a disparaging description of the administrator of some hospital, and in some circles this is considered almost as derogatory as the phrase, "He has a social viewpoint."

I suggest that any adjustment of the voluntary hospital system to the problem of the war and the postwar period will include a meshing of the activities of public and private hospitals. Such a coordination of work is taking place rapidly in Great Britain. Even Anglophobes may admit that it is inevitable here. There is a great frontier to explore between the boundaries of governmental institutions and those of the voluntary hospitals.

The dictum that "the less government we have the better" was perhaps more applicable in Emerson's time than today. Two great industrial revolutions have taken place in America during the past hundred years. The first was provoked by steam and the second by electricity.

Although there have been many other factors and many technological advances, these two great industrial changes of the past century have altered the whole social and economic fabric of our country. Self-employment has decreased. Independent entrepreneurs used to outnumber employed persons four to one. Employed persons now outnumber the self-employed by four to one. Even those who dislike to admit the implications of history or to consider that American social problems have anything in common with those of other countries must recognize that radical changes in employment status provoke demands for security against old age, unemployment, and sickness.

There are those who believe sincerely that such security should be provided as a dole and that its cost should be paid from general tax revenues. The majority seem

to regard the insurance basis as more equitable, and the Blue Cross Plans have helped to promote that principle. Self-help is preferable to subsidy. As widely as possible, therefore, the insurance principle may be substituted for tin-cup charity. As Woodrow Wilson once expressed it, "The firm basis of government is justice, not pity."

And now briefly a reference to the desire of the Social Security Board to extend tax legislation to provide payments for hospital care. Much heat and some light have been shed since the President of the United States made his Budget speech to Congress on January 8, 1942, and nearly all of the pressure has been against the proposal. Inadvertently, much argument has been based on assumption, and debatable details have muddled main issues. Attacks are made on the motives of the Social Security Board and of the Federal Administration and hospitals have been warned that there is a burglar under every government bed. Ray Lyman Wilbur, in speaking on another subject, has said, "We cannot wisely carry forward the fears and shibboleths of the past in facing the social and economic forces of the day. Waving scarecrows only disturb the unthinking."

The proposal recently advanced by the Social Security Board may never get to the legislative stage in its present form. Nevertheless, it seems inevitable that some method will be devised of making hospital care more available through governmental action. Let us consider the growing proportion of the population who are beneficiaries of government. Will there not be a more intimate relationship between hospitals and other public health activities in the future? What developments will there be in home nursing care? What contribution will hospitals make in the solution of problems of dislocation and reorganization of medical service during and after

this war? Are we thinking of these and other questions or are we, ostrich-like, avoiding them? Do you believe that every other activity can be regimented and yet hospitals be exempt from regulation or supervision? It is an anachronism now to say, "They can't do that to us."

Criticism is expressed by some respected thinkers in the hospital field that the Social Security proposal does not go far enough. It is believed by them that an inclusive rate schedule should be drawn and that hospitals then be required to give complete hospital care for an adequate per diem payment. Such a plan would undoubtedly give the patient better protection for he would receive the service benefits of the better type of hospital service plan. Administratively it would be more difficult, however, and the selection of fair rates of payment between sections of the country with wide variation of costs, between rural and urban hospitals, and between institutions of varying caliber in the same area would be a perplexing problem. Furthermore, while such a plan might be acceptable to some hospitals, there are others where it would wreak havoc with a system of extra charges limited only by what the traffic will bear. Moreover, such a system would undoubtedly destroy the Blue Cross Plans.

I shall not attempt to deal with details of the Social Security proposal other than to mention that the rate of payment per day—frequently mentioned as \$3.00—is, I understand, only a suggested minimum payment towards the cost. It is important to realize, however, that the total amount of income thus made available to hospitals would be great in relation to the total annual income from all patients in all hospitals of the United States today. Test checks have shown a surprisingly high percentage of patients in municipal hospitals and in the public wards of voluntary

hospitals, who, under such a plan, would be eligible for per diem payments towards the cost of their hospital care.

The moderate point of view which I am attempting to express may therefore be summarized as follows:

1. There is a long-term and inevitable trend toward the extension of social security legislation to include some measure of protection against the financial hazards of sickness.

2. The voluntary hospital system cannot continue to provide, throughout the nation, hospital care adequate in quality and quantity unless additional sources and systems of revenue are obtained.

3. The nongovernmental hospitals of the United States represent an investment in billions of dollars so great that, in any program for the improvement of national health, their facilities should be utilized.

4. The various units of government have assumed increased financial responsibility each year for the care of the medically indigent. Much of this increased expenditure by government has been for the care of patients in nongovernmental hospitals. To some extent this assistance has offset the decrease in income received by nongovernmental hospitals from endowment and private philanthropy.

5. The number of beneficiaries of government, already numerous, will increase greatly during the war and postwar period.

6. The nongovernmental hospitals would make a strategic mistake in slamming the door in the face of what may be an important source of needed funds. An extension of this source of income may enable the voluntary hospitals and the voluntary hospital service plans to strengthen and expand their opportunities as instruments of public health under private initiative.

7. It behooves the voluntary hospitals and the Blue Cross Plans to think less now

of fighting the government and more of fighting the battles of health.

8. Some delay may be advisable in order that any program may be studied, but government should be dealt with thoughtfully when any coherent constructive policy is brought forward.

9. The problem for hospital administrators and trustees is to retain the values of private, personal leadership which characterize voluntary hospitals, yet to accomplish a wide distribution of necessary service. This will require courageous and continuous attention to the needs of the community and it is, of course, impossible for good hospital service to be provided without adequate financial support. But the funds should be obtained from sources and directed to services which assure the greatest good for the greatest number.

Hospital executives and trustees must focus their attention upon service to the public, and must regard both hospitals and Blue Cross Plans as means to that end. Otherwise, the voluntary hospital system will vanish as a temporary venture in social welfare instead of leading the way to a comprehensive program for the preserva-

tion of personal and national health.

10. In the long run and for the good of hospitals and hospital service plans, more will be achieved if government is welcomed to a nonoperating but financial partnership.

In speaking of a related subject, Charles E. Wilson, president of the General Electric Company, recently stated: "It requires some new thinking, some forgetting of old privileges and old grudges, some brushing away of cobwebs to effect this cooperation. We cannot achieve it by reading papers about it or by resolutions virtuously passed."

And now finally may I explain that I have tried to present what seems to me to be a fair analysis of the position of the hospital today, some of the trends which are observed, and some of the forces which are operating. Our intelligent participation in the molding of any movement will perhaps enable us to increase the usefulness of our voluntary institution of tomorrow. In doing so may we not forget to recognize the interests not only of hospitals and of Blue Cross Plans, but also of the American people.

4. Add Another Two Billions for "Adequate" Future Plant, *by V. M. Hoge, M.D.**

TO THE question, should we plan now for postwar hospital construction, the answer can only be yes. Our problem is not whether but how to plan.

Shall we plan in terms of brick and mortar only? Or shall we plan our hospitals of the future to fit the social and scientific requirements of a postwar America? I think we all agree that we must do the latter. What direction then should our planning take? What course will the hospital of tomorrow pursue?

Countless articles have been written, countless speeches have been made on the

functions of the hospital, on its place in the community, and on its duty to the community. This subject cannot be dwelt upon too often or too long.

Upon the full realization of its function in the community and upon the fulfillment of that function, undoubtedly rests the future of the voluntary hospital system. We have come a long way since malaria resulted from the bad air or miasma of the swamp, since the devil mask of the doctor frightened away the bubonic plague, and since incense and incantations dispelled the

* Adapted from *Hospitals* 17:21-24, Dec. 1943.

evil spirits. But we have not come far enough.

We know the cause of nearly all diseases; and we know how to prevent most of them, yet we do not. Why? Primarily because the man in the street has not raised his voice and cried out to be protected.

Why does not this first law of nature assert itself? Primarily I believe because the average person knows neither the potential danger of disease nor the surety with which it may be prevented.

The public is not apathetic in the matter of health. The phenomenal success of patent medicine advertising is proof enough of that. Consider for a moment the generous response to the oft-repeated assertions in the current magazines that bleeding gums can be stanchied, that falling hair can be stemmed, that halitosis can be prevented.

How much more avidly would the public seek protection against serious ailments were it more fully and scientifically informed!

Are our hospitals then assuming their full status in the community? Are they taking the leadership in creating an informed and intelligent public health consciousness? That question must be re-examined again and again.

When we plan our hospitals of the future, shall we continue to plan houses only for the care of the unfortunate sick? Or shall we plan centers for the dissemination of health? We *must* plan for the latter, of course, and I mean specifically that while placing no less emphasis on the cure of disease, we must place a great deal more emphasis on its prevention.

You may ask, "Is not preventive medicine a function of the public health authorities?" To be sure it is—a function imposed by public necessity. It need not, however, be their exclusive function. The objective

is a common one: the best level of health which our scientific learning will permit. We have only to examine our military induction records to see that that goal is yet a long way from attainment.

Perhaps this preamble seems at the moment out of place in a discussion of post-war planning. If so, it is because I wish to emphasize most emphatically that the gleaming structures of concrete and steel which we plan for tomorrow must be considered as incidental to our concept of health, as a means to that end and not the end in themselves.

The problem ahead is one of tremendous magnitude, both in physical scope and in its social complexities. I think that no informed person will seriously argue that hospital care in this country has ever been adequate, even within the restricted present day concept of the term. There are three principal reasons for this:

Inability to meet the cost of care
Failure to appreciate the advantages of hospital care
Unavailability of facilities and services

Point one has without question the most important bearing on the matter. We have only to observe the index of occupancy in private and public hospitals during periods of depression as against periods of prosperity. During the depression of the '30's, the public or free hospitals filled up while the private hospital occupancy declined. Today the trend is reversed. Our plans for the future must include some means of preventing these erratic trends.

They can be leveled off to a large extent by reducing the cost of hospitalization to the individual and at the same time returning to the hospital the real costs of service. The real costs necessarily include not only depreciation on physical property, but must in the future include an employee wage

scale comparable to that of other work of similar skill and effort.

It is doubtful that endowments and contributions will continue to play the important part in hospital financing in the future that they have in the past and it is certain that patients able and willing to pay the cost of their own care cannot be expected to continue to contribute to the cost of the care of those unable to pay. In other words, it seems evident that the hospital of tomorrow must operate on a sounder financial footing than the hospital of today. The dispensation of charity is a time-honored and jealously guarded privilege of the hospital system, yet charity has not and cannot solve the financial problem.

Some more adequate and equitable means of meeting the cost of care must be found. Until a way is found, we should have no illusions that any postwar building program will bring adequate hospitalization.

Failure to appreciate the advantages of hospital care is an obstacle well on the way to removal. It is, however, still an important factor, particularly in certain areas. This lack of appreciation may stem from a positive fear of hospitals or from a negative indifference engendered by unfamiliarity.

Over the past decade, fortunately, many influences have been at work making the public hospital conscious. During the depression, liberalized social policies opened hospital doors to many who could of themselves never have afforded such care.

Young doctors graduating in the past ten years have become more and more dependent upon the diagnostic facilities of the hospital and have insisted more and more on hospitalization of their patients.

The well-planned sales campaigns of the Blue Cross Plans have kept before the public the fact that hospital care is an excellent thing.

Probably the most important single influence, however, in creating a future demand for hospital care is the second World War. Never before has military medicine attained such a high standard of efficiency. More than ten million men and women in our armed forces, drawn from all walks of life, will have intensive medical and hospital care for the period of their service and will no doubt be entitled to the same care after their discharge.

Each of these men and women and their families may be expected, therefore, to become an advocate for a more complete hospital service. All these factors assign to the hospital a more prominent place in the postwar America.

The third factor contributing to inadequate hospitalization is the lack of facilities and services. This is not so much a matter of numerical deficiency of total facilities now existent, but rather one of maldistribution and obsolescence.

If the general hospitals now in operation in this country, which provide more than 627,000 beds, were properly distributed, modern in their appointments, and adequately staffed, there would be little need for postwar planning of physical facilities. Since none of these conditions holds, however, we do have a planning and construction job of considerable magnitude.

Both the magnitude of the job and the direction of its planning necessitate certain assumptions. The first assumption is that through some means of spreading the cost, the financial ability to pay the cost of hospital care will be extended to the majority of the population.

It follows that under these conditions, facilities must be located so that they are within easy reach of both the patient and his doctor. This implies a decentralization and extension of facilities and services.

It must be emphasized that to extend hos-

pital facilities effectively into areas not now served and to upgrade the facilities in areas now inadequately served, standards of service must be assured. Lack of any means of maintaining high standards of service is admittedly one of the factors that has limited the extension of small hospitals into rural areas.

Should the Federal Government undertake some program of assistance to hospitals in the postwar period, I hope that its first effort will be directed toward an extension of facilities and services into the rural areas. Only by providing the tools with which to work can competent doctors be induced to settle in those areas where medical service was scarce even before the war.

If we can succeed in placing small hospitals of quality and well-trained medical personnel into our more remote areas, a way must be found of maintaining their excellence. It seems to me that our great institutions of medical learning have both a duty and a golden opportunity in assisting the rural hospitals of the country to acquire and maintain a satisfactory standard of facilities and services.

If an adequate program of short refresher courses for rural physicians could be worked out by the medical colleges, the standard of rural medicine would be raised immeasurably.

If, where necessary, resident physicians from the medical school hospitals were to take over the doctors' practice during the periods of their instruction, graduate training would be facilitated and at the same time a valuable period of training would be offered the resident.

Logically, an interchange of ideas and diagnostic skills and services could, under proper conditions, be worked out to a considerable degree. This idea is mentioned briefly here merely because it seems self-evident that unless our planning encom-

passes some means of maintaining standards of service in rural areas, our best laid plans can never fully materialize.

Let us assume that in the postwar period most of the obstacles which have limited hospital development in the past will be removed; that a way will be found to meet the cost; that a public demand for adequate hospital care will be expressed; and that a way of maintaining high professional standards even in the most rural areas will be developed. What then shall we build and where?

The potential construction program may be considered under two main heads:

- Extension of facilities into areas not now served or inadequately served.
- Replacement of obsolete facilities.

We have attempted an estimate of the volume of new construction that will be needed. Existing as well as new facilities needed are considered under the three broad categories of general, psychiatric, and tuberculosis hospitals.

General hospitals are estimated on a local service area basis, psychiatric and tuberculosis hospitals are estimated at state levels.

Despite improved transportation methods to be expected after the war, the general hospital will no doubt continue to serve best in a rather restricted service area. These areas are determined by population density, geography, and local trade area customs. While an appreciable fraction of the patients in a given hospital may be drawn from outlying areas, it seems reasonable to suppose that the majority of the patients will be drawn from within a fairly limited radius.

For purposes of estimate, therefore, arbitrary service areas have been set up, ranging in radius from fifteen miles in heavily congested areas to thirty-five miles in sparsely populated areas. In setting up these

areas, existing hospitals in addition to the other factors mentioned were taken into consideration.¹

After service areas comprising groups of counties were outlined about existing hospitals, the remaining counties having no facilities have been grouped so as to make up potential service areas.

The system of service areas was used in making the estimate of need, since this method permits apparent excesses in urban areas to compensate for deficiencies in surrounding rural areas within reasonable distance, but prevents the balancing of excess facilities in one area against deficiencies in distant areas.

The estimates were based on the ultra-conservative ratios of 4.5 beds per 1,000 persons in cities of 10,000 and over and 3 beds per 1,000 persons in smaller towns and rural areas. These ratios are advanced as neither ideals nor standards, but as the figure representing the approximate average usage in recent years.

The deficiencies in each state were determined by a simple summation of the deficiencies in each of the service areas. By this method it was found that not one of the forty-eight states was adequately served throughout by general hospitals. The total deficit found amounted to about 100,700 beds.

Aside from the deficiencies in existing facilities, it is recognized that many hospitals are old and dilapidated structures which should be replaced. While no precise measure of the extent of this problem is available, it was assumed that replacement needs may be conservatively estimated as being at least 25 per cent of all existing beds.

As in the determination of deficits, replacement needs were also computed for individual service areas. For the purpose of this estimate it was assumed that the replacement of obsolete beds should be lim-

ited by the determined ratios. In other words, no replacements which would result in more than 4.5 beds per 1,000 persons in one area were included in the estimates. A summation of the replacement needs gave a total of about 65,500.

The grand total of new general hospital beds needed in the immediate postwar period, therefore, is approximately 166,200.

Since an important part of existing tuberculosis facilities² are operated on a state rather than a local level, the state has been considered the service area and federal hospitals treating tuberculosis have been included in the existing facilities.

Two beds per annual tuberculosis death are generally accepted as the ratio of adequacy. On this basis only nine states were found to have adequate or better than adequate facilities. The deficit in the remainder of the states amounts to about 43,600 beds.

As in the case of general hospitals, it has been considered that at least 25 per cent of the existing facilities are obsolete and in need of replacement. This will require an additional 15,900 beds or a total of 59,500.

In the study of facilities for the care of mental patients,³ the state was considered to be the service area. The standard of adequacy was set at the very conservative ratio of 5 beds per thousand population. On this basis nineteen states were found to have adequate or more than adequate beds. The

¹ Existing facilities were those reported by *The Journal of the American Medical Association* of March 28, 1942.

² Existing facilities for the care of tuberculosis were determined on the basis of data listed in the 1943 Hospital Number of *The Journal of the American Medical Association*.

³ Neuropsychiatric needs were determined on the basis of data listed in the 1943 Hospital Number of *The Journal of the American Medical Association*. Facilities listed for hospitals classified as epileptic, mentally deficient and drug were included in the neuropsychiatric group. Beds in federal hospitals were included in the total of existing facilities.

remaining states revealed a deficit of about 94,000 beds.

Again assuming the arbitrary figure of 25 per cent obsolescence, we find in the states showing a bed deficit a replacement need for 96,900. We have therefore a total estimated construction need of 190,900 beds.

It is obviously impossible at this time to forecast estimates of possible cost in the postwar period. Prewar cost, however, may be used as an approximation. This would indicate the cost of general facilities to be about \$6,000 per bed, tuberculosis facilities at \$5,000 per bed, and psychiatric facilities at \$4,000 per bed.

To summarize, the postwar hospital construction problem in terms of beds and costs appears to be approximately as shown in the accompanying table.

COST OF POSTWAR HOSPITAL
CONSTRUCTION

	No. of beds	Per bed	Total
<i>General facilities</i>			
New	100,700	\$6,000	\$604,200,000
Replacement	65,500	6,000	398,000,000
<i>Tuberculosis facilities</i>			
New	43,600	5,000	218,000,000
Replacement	15,900	5,000	79,500,000
<i>Nervous and mental facilities</i>			
New	94,000	4,000	376,000,000
Replacement	96,900	4,000	387,600,000
<i>Total</i>	<i>416,600</i>		<i>\$2,063,300,000</i>

Although this appears to be a formidable program, it must by every method of reasoning be considered conservative. We have not included facilities for convalescent care, nor have we considered the growing need for special facilities for the care of chronic diseases.

With the ever increasing life span resulting from more effective preventive medi-

cine and better hygiene, the degenerative diseases of old age will inevitably become of increasing importance in the future hospital picture.

Nor have we included facilities for the administration of public health. These facilities rank as one of our most urgent needs in the health field today, and so far little more than a start has been made towards meeting this need. It is to be hoped that these facilities will to a large extent be incorporated into the hospitals we plan for the future.

The question naturally arises as to the possible extent to which wartime construction may affect postwar requirements. I think it can safely be assumed that the effect will be relatively small.

Since the onset of the war, private hospital construction has been held to a minimum and has been largely of a maintenance and emergency expansion type. Hospitals constructed for the armed forces cannot be expected to play a very important part in postwar civilian needs. Civilian hospitals constructed under the Lanham Act will of course affect the postwar estimates, but only to a relatively small degree.

If the presently estimated wartime needs were completely filled under the program, which is unlikely, the postwar estimates for general hospitals would not be reduced by more than 10 per cent.

A program of the magnitude discussed will require intelligent planning not only to build but to operate successfully in the postwar world. It is not too soon to begin now.

Many of the large cities and some states already have postwar planning commissions hard at work planning their own future developments. It is important that these planners represent all the community interests. Health facilities should assume an important place in these plans.

It now behooves all states and all com-

munities to formulate their programs for better health and crystallize their plans for the necessary facilities.

In making our plans it is to be hoped

that partisan interests may be submerged and that each facility may be planned with proper regard to its place in an integrated community health program.

5. Parran on Health and Hospitals in the Near Future*

ON JULY 12, 1944, Surgeon General Thomas Parran of the U.S. Public Health Service appeared before the Senate Subcommittee on Wartime Health and Education and made a statement on present and future needs of hospital and medical care which should interest all hospital executives and trustees. Pertinent excerpts from this statement are published here.

The voluntary or nonprofit hospitals have always relied heavily on private contributions to maintain their existence. Despite the traditional low salary level of nurses and other personnel, hospitals rarely show an operating profit.

As long as private contributions were forthcoming freely as they did in the past, most hospitals were able to struggle along and meet their operating deficits through community chest and other contributions. However, the gradual reduction of high individual incomes and private fortunes now tends to jeopardize this source of support and constitutes a serious threat to the continued existence of the voluntary hospital along traditional lines.

It now seems certain that the so-called charity aspect of hospitals will become of less importance and that they must be operated in a more businesslike manner and receive the full cash value of services rendered.

Hospital personnel must be paid at rates commensurate with the services rendered. It also follows that the private patient cannot continue to be charged to cover the cost of charity service.

If the cost of hospital care is to be kept within reach and the quality of care maintained, the future development of hospitals must include more efficient design, better business management, higher professional standards, and especially some means of spreading the cost to the individual.

Along with new facilities must go the ability to purchase care and the professional skill to furnish the service. It now seems certain in the postwar development that the people of the nation will increasingly demand and get more complete medical, public health, and hospital care.

Almost certainly this care will be purchased through some type of prepayment plan, and, having paid for it in advance, the public will demand that adequate facilities and services be made available. This means we should extend facilities into areas not now served, augment facilities where they are now inadequate, and replace obsolete facilities.

Whether new hospitals constructed in the future are operated by governmental units or by voluntary organizations is of secondary importance. It is important, however, that our present large capital and human investment in voluntary hospitals be protected and utilized to full capacity. The small hospitals now serving the rural communities—and those to be built in the future—must be brought into a coordinated hospital service plan.

At the present time the prepaid insurance plans of the Blue Cross are the most

* Adapted from *Hospitals* 18:41, Aug. 1944.

important voluntary effort in meeting the cost of hospital care. These plans now cover nearly fifteen million subscribers. Since the movement is relatively young, its potentialities as an instrument for making hospital care more universally available are somewhat unpredictable.

Undoubtedly the Blue Cross as a private voluntary movement has won a place in the American way of life. The plan would seem to have definite limitations. It does not seem applicable to the large low-income group of the population, or to those unemployable by reason of physical infirmity. It is these groups that have always constituted the major financial burden on the voluntary hospitals.

Medical and hospital care of the indigent and so-called medically indigent has long been accepted in theory as an obligation of society. The application of the theory, however, is subject to the widest possible variations. In the wealthier communities it may be reasonably adequate. In many others, however, hospital and medical care is haphazard or nonexistent.

The most expedient method of providing adequate health facilities to meet post-war needs would seem to be through a federal grant-in-aid program to the states.

Previous public works programs providing funds for civilian hospitals have all been conducted as a direct federal-local relationship. Under this type of arrangement the proper integration of new facilities with the old or with any program planned on a state level is difficult if not impossible.

For this reason I believe that the use of federal funds for aiding local health facilities should be based upon the relative urgency of need as determined by responsible state and federal health agencies after careful study.

I believe that insofar as practicable all

health programs within a state should be concentrated in one state agency. In the event of a federal aid program for construction, it should be administered within the state by that agency.

Before any construction is started, this state agency should make a thorough study and evaluation of existing facilities, indicating the type and location of new facilities needed and the order of their urgency. No new facilities, either public or private, should be permitted unless they fit into the planned state program.

Hospitals of all types, diagnostic centers, health centers, and other health facilities should be planned, built, and operated solely for the object of insuring to every citizen the maximum benefit from all that medical science has to offer.

The facilities themselves are of little value unless they provide the physical and professional tools for trained hands to use in the prevention and treatment of disease.

The day of the country doctor of the saddle bags, riding alone through the countryside, is past. There is need to develop a newer type of family physician who has at his command the complicated instruments and the specialized knowledge which call for many different types of training. This newer type of family physician will be primarily concerned with preventing disease, with understanding of causes of illnesses, with removing these causes before the patient becomes a hopeless or even a serious case.

The medical profession working alone cannot bring about a full realization of this concept. The public health, which means the sum total of individual health, is of paramount public concern in our modern society. Working together, the public and the professions can attain the democratic goal of an equal opportunity for health.

6. Partners with Other Private and Governmental Agencies, by *Basil C. MacLean, M.D.**

The danger for medicine in America lies in failure to acknowledge and to study the sociologic aspects of medicine—the social matrix. We are loath to see that research and teaching, as well as the practice of medicine, will change when change comes in the prevalent interpretations of the role of government as the structure of our society.

The status of a physician is changing from that of being a private luxury to becoming a public necessity and the more so when taxation, poverty, and the losses of war diminish private luxury to the vanishing point.

I do not want the private practice of medicine to disappear nor do I believe it will. Our public school system is socialized education. It did not destroy the private schools. The concept of free public primary and secondary education, later followed by free universities, was extraordinarily inclusive in its sweep. It, too, was a radical departure from the traditions of an earlier form of society.

Public school education was challenged by those who believed that education was an individual relationship, had always been so, and could not be made a mass affair. The cost of giving every child a grammar school and high school education was decried as unbearable and its practicability was denied because of the inadequacy in numbers and training of teaching personnel.

We have forgotten the long delays in the growth of public education, but after almost a century of effort, growth, and improvement there has come a triumph for our grandfathers' conviction that a literate citizenry, even at a great cost, is the best guarantee of a democracy. What is now wanting (though wartime demands more than suggest it) is a similar belief that a healthy citizenry is an equally important guarantee of a strong and free nation.—From an address, "The Matrix of Medicine," delivered at the Centenary Exercises and University Convocation of Western Reserve University School of Medicine, October 1943, by Dr. Alan Gregg, director for the medical sciences, Rockefeller Foundation.

I HAVE taken Doctor Gregg's statement as my text for this discussion because it forecasts changes that will affect our hospitals and because it suggests a broad and realistic approach to all planning. So much of the postwar planning one hears about in our hospitals has to do with bigger buildings and more beds that it is refreshing to see stressed the need for better medical and hospital care.

It is hazardous in some circles to mention that change is inevitable in all things. One

risks the red label for none is more sensitive than the advocate of *status quo*. I dare not be dogmatic for there is so much that I do not understand. What is more, I suspect all of you are familiar with the statement of Goethe: "It is only when we know very little about a subject that we are quite sure; and with knowledge, doubt grows." Nevertheless, I should like to venture a few predictions.

* Adapted from *Mod. Hosp.* 63:45-46, July 1944.

It is apparent that the advocates of group practice of medicine will have a much greater following in the years after this war. The advantages of professional teamwork have been demonstrated to many thousands of medical men in the armed forces and many of these men believe that in civilian life these advantages may be offered by group partnership and without appreciable loss of individual independence.

Although the salaried practice of medicine is now found mainly among the faculty members of teaching hospitals and although the fabric of this system has been weakened by the demands and the opportunities of wartime, it is suggested that after the war there will be an increase in the number of hospital appointments on a salaried full-time or part-time basis in many of our voluntary hospitals.

It is suggested further that the request for such a development will come from the clinical members of the professional staff of hospitals and not only from the members of laboratory and other ancillary departments. The hospital of tomorrow must be conducted in a businesslike manner and be subject to the dictates of economics and of common sense but, I believe, there will be less bickering over who gets a fee, from whom, and how.

An increase in the number of diagnostic clinics conducted by hospitals will be only a response to an obvious need. But the problem here encompasses more than community teamwork.

The proposed regionalization of hospitals in Great Britain sets a pattern that has attracted attention in this country, and Proger of Boston has dealt with this subject in a recent article describing the work of the Bingham Associates Fund. As he explains it, the medical center "should serve as a source of specialized aid" and not be just "another building with more beds for pa-

tients with pneumonia or heart failure or for those who require appendectomies and herniotomies. In other words, it should not be simply another hospital. The mass of work should be done locally by community hospitals, more advanced work should be done in regional centers and only the final filtered cases should be handled in the medical center."

I interpret this to include outpatient care also. A makeshift diabetic outpatient clinic with three visits a week is an anachronism when near by there is a well-organized one with every facility. To do these things, however, we shall have to overcome much of our individual hospital vanity and most of our interhospital jealousies.

The interrelationship of hospitals on a functional basis may extend logically to better programs for the training of interns, residents, and student nurses. We must admit that in many communities a pooling of facilities for classwork instruction in some subjects of the nursing curriculum would provide better training for student nurses of participating hospitals. In a similar way, rotation schedules for interns and residents have been worked out among hospitals and a better training has been afforded.

Under private or public auspices and for patients in almost all economic groups, home nursing service is a logical extension of the facilities of the hospital and it is probable that the use of it will increase. Some hospitals provide home nursing service for their obstetrical ward patients and outpatients. One need not be a visionary to predict that voluntary and governmental home nursing services will in the future be utilized more by all classes of patients before and after hospital care.

It is evident to all of us that the artificial barriers between preventive and curative medicine are being broken down. As the emphasis is shifted from disease to

health the family in the civilized society of tomorrow will surely have easier access not only to a doctor but also to a health center.

The hospital administrator will be, or at least should be, less of a private bookkeeper and housekeeper and more of a public servant, educator, and health officer. And here let me add a word of praise for those hospitals where efforts have been made to assist in the problems of screening of prospective inductees for service in the armed forces. By making available data of value in the examination of individuals these hospitals have made a real contribution.

Hospitals will be expected to provide facilities for finding unsuspected disease and more of the apparently well will come to us. The inclusion of a chest x-ray as part of a routine examination for all inpatients and outpatients is now a practice in some hospitals and will probably be as effective in disclosing unsuspected chest pathology as routine serology has been in detecting unsuspected syphilis.

Even at the risk of annoying some of my friends in the hospital field for whom I have the greatest respect and affection, I mention again the wisdom of and the need for a better working relationship between voluntary hospitals and governmental agencies at all levels. Without detracting in any way from the fine achievements under private initiative, and with a sincere hope that they may grow much greater, I suggest that we consider thoughtfully the degree to which hospital care is now furnished or financed by government.

The income received from the government by many voluntary hospitals has increased markedly during the last decade and a stability of finance on a service unit basis is bringing a measure of independence which hospitals could never obtain with a tin cup.

Read the G.I. Bill of Rights and con-

sider its implications. Consider the responsibility of the Veterans Administration for medical and hospital care of former servicemen and the monies that have been appropriated to provide additional facilities for the purpose. Consider, too, the forces now operating and the influences that may be brought to bear during and after this war on matters that vitally affect our voluntary hospitals. Then let us decide whether it is better to work with or against these agencies of our government—whether it is better to throw bricks or to lay them.

The avenues for participation by a hospital in public health activities are many and varied and new vistas open each year. Cancer control programs have encouraged the use of special clinics in hospitals for the periodic examination of women of cancer age. The venereal disease problem will be dealt with more realistically as it becomes a matter of medicine more than of morals. But these are only illustrative.

On the other hand, the hospital, with great advantage, can make use of the facilities of the local health department. For example, the techniques and procedures of caring for the newborn should, I believe, be standardized by hospitals within an area and in consultation with the health department. In one community, such assistance from the health officer has solved a simple problem of recurring outbreaks of gastrointestinal infections in hospital nurseries.

Within limitations imposed by character and size of the community, the voluntary hospital of tomorrow should house either the headquarters or a branch of the bureau of health.

The American Hospital Association now regards public relations as an important activity of the Association and of its member hospitals. Around National Hospital Day has been built a system of awards on the basis of newspaper and other publicity.

Without disparagement of this, I suggest the greater propriety of emphasis upon the public health activities of a hospital even to the extent of an annual award.

The voluntary hospital as we know it today may choose to be strictly a private enterprise with little claim to public service, self-centered, concerned only with curative medicine and only with patients in certain economic strata. Or it may choose to be a part of an expanding program of community effort for public health and welfare, responsive to public needs and a

partner with other private and governmental agencies in these fields.

The one path will lead, I believe, to a system of private nursing homes or hotels for sick people and another separate system of governmental hospitals with broad responsibilities. The other path, I am convinced, will bring the voluntary hospital to a position of preeminence among American institutions and to a measure of usefulness greater—much greater—than it has yet attained. I like to think that we shall choose the latter.

7. Medical Care in a National Health Program; An Official Statement of the American Public Health Association, Adopted October 4, 1944*

AT THE annual meeting of the Committee on Administrative Practice of the American Public Health Association, October 9, 1943, the committee directed its Subcommittee on Medical Care to draft a set of principles expressing the desirable content of a comprehensive program of medical care, the methods of its administration, and the part which public health agencies should take in its operation. In pursuit of this assignment, the subcommittee completed a tentative draft, which was considered and adopted by the Committee on Administrative Practice at its meeting, October 1, 1944. The report was then transmitted to the Governing Council of the Association where, after certain revisions, it was adopted as a statement of Association policy.

Because of its composition and charge, the subcommittee has limited its considerations to one sector of a comprehensive national health program, namely, medical care.

In preparing the report, the subcommittee has considered:

- A. The needs for a national program for medical care
- B. The objectives of such a program
- C. Recommendations for immediate action

The American Public Health Association through its national organization and its constituent societies stands ready to collaborate with the various professional bodies and civic organizations which may be concerned with either the provision or receipt of medical service with a view to implementing the following general principles:

A. THE NEEDS

I. A large portion of the population receives insufficient and inadequate medical care, chiefly because persons are unable to pay the costs of services on an individual payment basis when they are needed, or because the services are not available.

II. There are extensive deficiencies in the physical facilities needed to provide reasonably adequate services. Such facilities include hospitals, health centers, and laboratories. The needs are most acute in poor communities, in rural areas, and in urban areas where the population has increased rapidly or where the development of facilities has been haphazard or the financial support inadequate.

* Adapted from *Am. J. Pub. Health* 34:1252-1256, Dec. 1944.

III. There are extensive deficiencies in the number and the distribution of personnel needed to provide the services. Here again, the needs vary according to categories of personnel and to characteristics of communities.

IV. There are extensive deficiencies in the number and categories of personnel qualified to administer facilities and services.

V. Many communities still are not served by public health departments; others inadequately maintain such departments. Thus, some communities have never utilized organized health work to reduce the burden of illness, and others share its benefits only in part. In these communities especially, people lack information on the benefits of modern medical care.

VI. Expansion of scientific research is urgently needed. Despite past and current scientific advances, knowledge as to the prevention, control, or cure of many diseases is lacking.

Each of the six conditions defined above can be broken down into many component parts representing specific needs. In general, however, solutions of these broad problems require simultaneous attack on four fronts: distribution of costs, construction of facilities, training of personnel, and expansion of knowledge.

B. THE OBJECTIVES

I. A national program for medical care should make available to the entire population all essential preventive, diagnostic, and curative services.

II. Such a program should insure that the services provided be of the highest standard, and that they be rendered under conditions satisfactory both to the public and to the professions.

III. Such a program should include the

constant evaluation of practices and the extension of scientific knowledge.

C. RECOMMENDATIONS

The recommendations presented in this report represent guides to the formulation of a policy for action. It is believed that study of these recommendations by the professions and others concerned in the states and localities will produce new and more specific recommendations for the attainment of the objectives of a national health program.

I. The Services

a. A national plan should aim to provide comprehensive services for all the people in all areas of the country. In light of present-day knowledge, the services should include hospital care, the services of physicians (general practitioners and specialists), supplementary laboratory and diagnostic services, nursing care, essential dental services, and prescribed medicines and appliances. These details of content must remain subject to alteration according to changes in knowledge, practices, and organization of services.

Because of inadequacies in personnel and facilities, this goal cannot be attained at once; but it should be attained within ten years. At the outset, as many of the services as possible should be provided for the nation as a whole, having regard for resources in personnel and facilities in local areas. The scope of service should then be extended as rapidly as possible, accelerated by provisions to insure the training of needed personnel and the development of facilities and organization.

b. It is imperative that the plan include and emphasize the provision of preventive services for the whole population. Such services include maternity and child hy-

giene, school health services, control of communicable diseases, special provisions for tuberculosis, venereal diseases, and other preventable diseases, laboratory diagnosis, nutrition, health education, vital records, and other accepted functions of public health agencies, which are now provided for a part of the population.

c. In so far as may be consistent with the requirements of a national plan, states and communities should have wide latitude in adapting their services and methods of administration to local needs and conditions.

II. Financing the Services

a. Services should be adequately and securely financed through social insurance supplemented by general taxation, or by general taxation alone. Financing through social insurance alone would result in the exclusion of certain economic groups and might possibly exclude certain occupational segments of the population.

b. The services should be financed on a nation-wide basis, in accordance with ability to pay, with federal and state participation, and under conditions which will permit the Federal Government to equalize the burdens of cost among the states.

III. Organization and Administration of Services

a. A single responsible agency is a fundamental requisite to effective administration at all levels—federal, state, and local. The public health agencies—federal, state, and local—should carry major responsibilities in administering the health services of the future. Because of administrative experience and accustomed responsibility for a public trust, they are uniquely fitted among public agencies to assume larger responsibilities and to discharge their duties to the public with integrity and skill. The exist-

ing public health agencies, as now constituted, may not be ready and may not be suitably constituted and organized, in all cases, to assume all the administrative tasks implicit in an expanded national health service. Public health officials, however, should be planning to discharge these larger responsibilities, and should be training themselves and their staffs. This preparation should be undertaken now because, when the public comes to consider where administrative responsibilities shall be lodged, it will be influenced in large measure by the readiness for such duties displayed by public health officers and by the initiative they have taken in fitting themselves for the task.

b. The agency authorized to administer such a program should have the advice and counsel of a body representing the professions, other sources of services, and the recipients of services.

c. Private practitioners in each local administrative area should be paid according to the method they prefer, i.e., fee-for-service, capitation, salary, or any combination of these. None of the methods is perfect; but attention is called to the fact that fee-for-service alone is not well adapted to a system of wide coverage.

d. The principle of free choice should be preserved to the population and the professions.

e. State departments of health and other health agencies are urged to initiate studies to determine the logical and practical administrative areas for a national medical care plan.

IV. Physical Facilities

a. Preceding or accompanying the development of a plan to finance and administer services, a program should be developed for the construction of needed hospitals,

health centers, and related facilities, including modernization and expansion of existing structures. This program should be based on federal aid to the states and allow for participation by voluntary as well as public agencies, with suitable controls to insure the economical and community-wide use of public funds. The desirability of combining hospital facilities with the housing of physicians' offices, clinics, and health departments should be stressed.

b. Federal aid to the states should be given on a variable matching basis in accordance with the economic status of each state.

c. Because of its record of experience and accomplishment in this field, the U.S. Public Health Service should administer the construction program at the federal level, in cooperation with the federal agencies responsible for health services and construction.

d. Funds available under this program should be granted only if:

(1) The state administrative agency has surveyed the needs of the state for hospitals, health centers, and related facilities, and has drawn up a master plan for the development of the needed facilities (taking account of facilities in adjacent states); or, in the absence of a state plan, the project is consistent with surveys of construction needs made by the U.S. Public Health Service;

(2) The proposed individual project is consistent with the master plan for the state; its architectural and engineering plans and specifications have been approved by the state agency and/or the U.S. Public Health Service; and there is reasonable assurance of support and maintenance of the project in accordance with adequate standards.

e. State health departments are urged to conduct studies to develop state plans for the construction of needed hospitals, health

centers, and related facilities. Such studies should be made in cooperation with official health agencies, with state hospital associations, and other groups having special knowledge or interests.

V. Coordination and Organization of Official Health Agencies

a. The activities of the multiple national, state, and local health agencies should be coordinated with the services provided by a national program. There is no functional or administrative justification for dividing human beings or illnesses into many categories to be dealt with by numerous independent administrations. It is difficult to reorganize agencies or to combine activities and this cannot be accomplished hurriedly. Therefore studies and conferences should be undertaken without delay at the federal level and in those states and communities where the health structure is already unnecessarily complex.

b. The federal and state governments should provide increased grants for the extension of adequate public health organization to all areas in all states. Increased federal grants should be made conditional upon the requirement that public health services of at least a specified minimum content shall be available in all areas of the state.

VI. Training and Distribution of Service Personnel

a. Within the resources of the program, financial provisions should be made to assist qualified professional and technical personnel in obtaining postgraduate education and training.

b. The plan should provide for the study of more effective use of auxiliary personnel (such as dental hygienists, nursing aides, and technicians), and should furnish finan-

cial assistance for their training and utilization.

c. Professional and financial stimuli should be devised to encourage physicians, dentists, nurses, and others to practice in rural areas. Plans to encourage the rational distribution of personnel, especially physicians, should be developed as quickly as possible, in view of the coming demobilization of the armed forces. Such plans should be integrated with the whole scheme of services and the establishment of more adequate physical facilities.

VII. Education and Training of Administrative Personnel

a. Education and training of administrative personnel should be encouraged financially and technically, especially for those who may serve as administrators of the medical care program, for hospital and health center administrators, and for nursing supervisors.

b. State health departments should utilize those funds that may be available to

train personnel in such techniques as administration of health and medical services and of hospitals. Such a training program may contribute more than any other single activity to the future role of the official public health agency. As a corollary, the attention of schools of public health is directed to the importance of establishing the necessary training courses.

VIII. Expansion of Research

a. Increased funds should be made available to the U.S. Public Health Service and to other agencies of government (federal, state, and local), and for grants-in-aid to nonprofit institutions for basic laboratory and clinical research and for administrative studies and demonstrations designed to improve the quality and lessen the cost of services.

b. The research agencies and those responsible for making grants-in-aid should be assisted by competent professional advisory bodies to insure the wise and efficient use of public funds.

8. Medicine and the Public Welfare, by *Viscount Dawson of Penn, M.D.**

This paper by one of the most distinguished of British physicians appeared as the leading article in the British Medical Journal, May 9, 1942 (p. 573). Because of the suggestive principles which it offers for the planning of medical and hospital services, it is reprinted by permission, and has been submitted in proof to a number of Americans inviting comments. Some of these follow.—The Editors of Medical Care

WHEN the war, as now, is passing through an anxious phase we are apt to say, "A plague on reconstruction talk—first win the war." This is anxiety entangling the mind in one-track thinking. On the contrary, we should at times occupy our minds with fancies free and especially with the future in order to recreate our minds for their war duties; for in so doing we indirectly assure ourselves there will be a future.

And here, in passing, I may remind you that the best psychological treatment is often that which is implicit rather than explicit.

War does not so much produce social changes as hasten the fruition of those already in seed or bud, or again bring back to the light of day projects born years previously but later lost in the mists of inertia

* Adapted from *Medical Care* 2:322-336, Nov. 1942.

or political exigency. For twenty-five years or more the idea has been spreading that the practice of medicine should be occupied not only with those disabled by sickness or accident but also, if not primarily, with the building up of health, and that for this extended purpose our medical services have become too haphazard and incoordinate in their arrangement. In other words, organization has not kept pace with ideas. If the community is to have in its care the health of its citizens as it has their education, the location of health centres and hospitals must, like that of schools, correspond to the distribution and needs of the population. Indeed, it is surely apparent that the rearing and training of a healthy body and the education of its occupant are two processes so interdependent that a system of health centres is as necessary as a system of schools, and when it is recalled that the integration of health is in many of its aspects a matter of education the parallelism becomes closer.

A brief retrospect will clarify this contention. Although the care of public health came into being many years before public elementary education was instituted in 1870, it was in those early years, for the most part, impersonal and environmental, and concerned itself with such matters as drainage, sewerage, disposal of refuse, pure water supplies, air, and light. It was not until 1915 that there opened up the chapter of communal care for the health of the human body in the shape of special services for expectant mothers, maternity, infants, children in schools, dental care, and for certain diseases, of which tuberculosis was the forerunner (1912).

All credit to the founders of the communal health services; but greater fame would have been theirs had they secured the active participation of the whole profession. Instead they reared these services in bureau-

cratic isolationism. The responsibility lay in equal measure with the Royal Colleges and the teaching hospitals and their staffs; their minds were held within the ancient confines of curative medicine and were blind to the enlarging opportunities opening out before them. The result was a gulf fixed between preventive and curative medicine, which has now to be bridged. In these health clinics preventive and curative medicine meet, and who can doubt that general practice should embrace both and that hospital practice and the medical curriculum should include both?

Immediately after the war of 1914-1918 the Ministry of Health was founded, and in its constitution there was provision for the setting up of a "Consultative Council on Medical and Allied Services." This Council was intended as a link between the profession and the Ministry, and I was appointed its chairman. Its first reference was: "To consider and make recommendations as to the scheme or schemes requisite for the systematized provision of such forms of medical and allied services as should, in the opinion of the Council, be available for the inhabitants of a given area." Here was the notion of the region.

In 1920 there followed a unanimous report the recommendations of which might well form a basis of reconstruction to-day. Indeed, the movement of 1920-1921 has been reborn and extended under the name of regionalization, which is being furthered with both skill and purpose by the Nuffield Provincial Hospitals Trust and by the Planning Commission of the British Medical Association.

The next landmark was the Local Government Act of 1929, which among its provisions included the setting up of rate-supported municipal and county hospitals, which are now making such progress in our midst.

Another trend, more and more apparent during the last twenty-five years, is the need for greater institutional provision. The increase of knowledge, and with that the development of teamwork, has made this inevitable. The doctor works best where equipment and ancillary services are available, and side by side with his fellows. Further, such institutional provision is economical of both time and cost and makes a health service available for all citizens. In short, the tendency is for the centre of gravity of practice to shift away from the home to organized surgeries, clinics, health centres, and hospitals, and these would be distributed in their various grades throughout the region so as to constitute a coordinated scheme of service—some deriving from voluntary and others from rate-supported institutions. The way in which the war has made clear the importance of industrial medicine illustrates this theme.

In the realms of both health and education there is organized provision for the welfare of the young from birth to the present school-leaving age. After this but little is ordered for either education or health. Yet youths in their teens and onwards are entering workshops, factories, and mines, and, let us hope, agriculture, and in these formative years their success or failure in life may well be determined.

Here is opportunity for health centres attached to industrial establishments to concern themselves with healthy living. They will get to know physiques and aptitudes and their relation to working conditions; they will note defects of frame and tendencies to ill health while in their early and curable stages, and provide corrective treatment for them; they will send cases of illness to their own or suitable hospitals, and on the positive side will direct physical training, encourage games, superintend the dietary of the canteens, and, above all, carry

on the health education of the workers, impressing upon them that in the last resort their health depends upon themselves. To take the example of tuberculosis, it is not too much to say that, through the agency of such health centres, which would include examination of workers by x-rays, the elimination of tuberculosis would in a few years make giant strides. Here would be medicine at its best—prevention and cure hand in hand, scientifically and socially ordered and new knowledge, ever accruing. And here progress can be achieved during the war: no mass institution of health centres, but a few well-conceived experiments which would take cognizance of services already existing and prepare the way for future developments.

Is it not plain that for any national planning scheme to be successful it is necessary that voluntary hospitals and agencies on the one hand and rate-supported hospitals and local authorities on the other hand should work together in double harness with the guidance but not direct governance of the State and that personal health services and curative medicine must be brought into close cooperation in general practice, in hospitals, health centres, and clinics, and, not least, in education?

Both the rate-supported and the voluntary hospitals have their values. Both have the welfare of the community at heart and are necessary one to the other. The former, though still needing adjustments and improvements, have made remarkable progress in the few years since their inception, and often show readiness to cooperate with the voluntary hospitals, notably in the County of London. For their highest posts clinical work is unfortunately at a disadvantage compared with administration. Their chief disadvantage is that they are not yet in close enough contact with the collective mind of academic medicine, which is illus-

trated by the defective methods for the appointment of their visiting staffs. On the other hand, the leading voluntary hospitals have centuries of tradition behind them; they have been the homes of the outstanding minds and thinkers in medicine, and today hold leaders of the profession. Their faults are that they think too much in terms of their individual selves and fail to appreciate they are members of a group. If in this changing world they were to yield some of their ingrained detachment and enter into this new fellowship they would make an incomparable contribution to the welfare of the community.

If I have your agreement that an ordered service of medicine (just as an ordered service of education) is necessary for the welfare of this country, I submit that such service must be something which suits the habits of thought of our people and should evolve from what already exists—and it may be stated with confidence that what already exists is, speaking generally, very good.

General practice, the basis of any scheme of medical services, will require institutional provision at health centres and selected hospitals. In the 1920 scheme, hospitals were grouped into primary, secondary, special, and teaching. Primary hospitals were to be staffed by general practitioners aided by visiting consultants, and the remaining groups by consultants and specialists.

Under regionalization such a scheme of graded hospitals (some hospitals rate-supported, others voluntary) and of personal health services would be implemented to meet the needs of the region and to eliminate overlapping and unnecessary units. A teaching hospital linked to a university would, wherever possible, be the focus or the directing centre of the region, and there would appear to be a general agreement

that dividing the country into regions, although it may involve the combining of local government areas, for this purpose would ensure the best service.

If, then, we assume for the moment the country divided into regions, and a regional council for the ordering of each region, the question arises, What should be the powers of the regional council; should they be advisory or executive? Whether a regional council has executive or only advisory powers, the overriding desideratum is that the medical services should be guided by those who have knowledge and purpose and are not unduly influenced by political-mindedness. In either case a regional council will be faced by the difficulty of relations with multiple local authorities and of cutting across their boundaries. Again, in either case it will contain on the one hand representatives of voluntary medical and allied services, and on the other hand nominees of local authorities and probably a few co-opted members.

If it is to have executive powers, these powers would either be overriding and need to be established by statute or they would be delegated by local authorities themselves. The advantages would be correlation of services by unity of command for the whole region, and a body possessed of the requisite knowledge and devoted with singleness of purpose to personal health and hospital services. But such a regional council would need to be supplied with funds and possessed of an administrative and financial establishment, which could not fail to rub shoulders with the major local authorities within the region, involving contacts so close as to be charged with the danger of friction. Thus might be imperilled that confidence and cooperation without which the regional council could not attain success.

On the whole I suggest it would be better in the first instance—on a five-year plan if you like—for the final executive power to be with the major local authorities through statutory committees (on the lines of the education committees), with an obligation placed on these committees to seek the advice of the regional council, which would have the right, in the event of its advice being rejected, of appealing to the central authority in Whitehall. If in its turn the regional council were assisted by a medical committee representative of the region on which medical officers of health had seats, I suggest it would as an advisory body have more weight than if it were itself possessed of full executive functions.

There is yet another, and bolder, plan worthy of consideration, which would be an advance in political science. Government to be efficient must be guided by scientific knowledge. Autocracies avail themselves of that knowledge with greater readiness because the dictator sets up the appropriate technical body and without delay adopts or refuses its advice, whereas democracies dilly-dally because so many departments that do not understand the technical problems must have a say. Innumerable examples come to mind—synthetic rubber; the synthesis of glycerin, which would have saved our fats, bread, milk, vegetable protein; protective measures against the spread of diphtheria and venereal disease to mention a few examples at random.

To meet this difficulty, democracy is setting up semi-autonomous executive bodies, on which the Government is strongly represented and otherwise consisting of those who have the requisite knowledge. Radio-activity, broadcasting, electricity are examples of the subjects dealt with. Why should not health and hospitals be under such semi-autonomous bodies? In the twelve or

more regions they would be based on the major local authorities, and in London there could be a central semi-autonomous authority with power delegated from the Ministry of Health. It is, I submit, worth thinking about.

Next, the question of payment for services received. It is surely right in principle that patients should make a reasonable payment either directly or through contributory schemes or other forms of insurance. Here I submit that though contributory schemes are sound in idea and practice they are likely some day to evolve into a nation-wide scheme of comprehensive social insurance, and the planning of services would make this practicable. The assessment of payments by patients and of remuneration to staffs of hospitals would need to be uniform as between state-supported and voluntary institutions in the same region.

Let us pass on to consider the staffing of these services in the homes, surgeries, health centres, and hospitals. Would the conversion of medical practice into a whole-time service be in the national interest? With the prospect of large social and economic changes following the war the answer might in the course of years be in the affirmative. Fortunately no answer is needed now. If agreement on planning is reached, it can only be implemented step by step, for a full pattern of services will not spring up in the night. The first stage of implementation will be the coordination of existing hospital services and the bringing of personal health services into the body of medical practice and the various people concerned in this implementation learning to work together.

These are the most urgent needs. Health centres and clinics will usefully appear here and there, but on no large scale until experience of their varying designs and func-

tions has been gathered. Gradualness is inevitable.

With the payment of visiting staffs of hospitals, with the staffing of health services by suitably qualified general practitioners, with the upgrowth of industrial medicine, and the habit of some local authorities to favour whole-time service, not to mention the proposed extension of panel practice, it is clear that the earnings of the profession will be derived in increasing proportion from salary and in decreasing proportion from fees.

So it should be with the staffing of hospitals. Apart from the professorial units, the larger hospitals will doubtless offer increasing opportunities to men who desire to undertake whole-time hospital service. The London County Council affords a good example of whole-time and part-time men working side by side.

Five years will show us the way. We must innovate greatly but quietly. Meanwhile we can pause to consider a whole-time medical civil service on its merits. It would be a more compact and tidy administration, and would probably be run at less cost; but would it have the same value? We have an example of a whole-time service in the R.A.M.C. For war its organization is admirable, but for civil life would not its administration be too rigid, advancement too dependent on seniority, and its day-to-day work without a sharp enough spur of ambition? It is important not to confuse ambition with egoism. Ambition

stimulates a man to do his best, and a healthy thought of self consorts well with a desire and endeavour to help others. A whole-time altruism is a futile philosophy.

There are few callings in which there is so big a gap between routine and the best work as in medicine, and no profession needs to be so elastic in its government if it is to be dynamic, not static. Its front line of knowledge is always mobile and often advancing; the men working there need freedom for initiative and should be unfettered by the formulae of administration and, may be, on the other hand, by the demands of practice. And the same considerations hold in the sphere of clinical practice, for though we need ordered planning we must strive to avoid any cast-iron uniformity. Rather do we seek unity amidst diversity; for man, whatever his political colour, is individual, and in illness even more so than in health, and his doctor must remain an individual and not become an official. It is here that medical planning is up against its crucial difficulty, in that it requires collectivism for its fabric and individualism for human relationships. And individualism will not flourish easily within the rigid boundaries of a state service, but needs the freer atmosphere which belongs to the voluntary hospitals' tradition; for, in the difficult conditions of a greatly changing world, doctors will need not only knowledge but understanding if they are to guide bodies and minds along the straight road of health and content.

COMMENTS ON VISCOUNT DAWSON'S ARTICLE

IT STRIKES me as an unusually thoughtful presentation of this difficult problem and indicates the effect of the war upon the plan which is undergoing evolutionary processes. I note particularly the emphasis

upon the coordination of existing hospital services. I should like to see this article given a very wide spread in this country. I believe that the medical profession is in a better mood now to listen to the British

experience as presented in this article.—
*Ray Lyman Wilbur, M.D., Chancellor,
Stanford University, California.*

I thoroughly agree with the author's conclusion that medicine requires "individualism for human relationships," and as Lord Dawson so well remarks, "individualism will not flourish easily within the rigid boundaries of a state service, but needs the freer atmosphere which belongs to the voluntary hospitals' tradition."

We in this country need such regional councils as Lord Dawson suggests for England. This suggestion has been made repeatedly in discussions of the American Hospital Association and in the recommendations of special committees or councils. When it comes to practical administrative arrangements, while it is advisable to study the experience of other countries, it is unwise to base our arrangements on models created under conditions unlike our own. Let us exchange views with England to our mutual advantage, but let us in America shape our plans in accordance with our own carefully studied needs and with due regard for our own social and professional traditions and administrative genius.—
S. S. Goldwater, M.D., President, Associated Hospital Service of New York.

Viscount Dawson's article seems to me of great importance to Americans on several grounds. First of all, it is significant that British medicine, even in its official organization, has recognized the existence of a national health problem which must be solved by concerted planning. How long will it take us to advance to this stage, instead of going on to debate whether a problem exists and whether any planning is necessary outside of that which may be carried on within organized medicine itself?

Second, I am impressed with the fact that when we do begin to plan we may benefit

from British experience and start at a somewhat more advanced stage rather than following slavishly where British medicine began years ago. It is clear from this and other British studies that health insurance, based on individual practice, is not enough, whatever its virtues. The fact that the British are now thinking in terms of health centers and regional coordination of all health services, both preventive and therapeutic, is highly significant.

Finally, I am impressed by the British concern with bringing continuously to bear on medical practice the unending series of scientific advances which may make it more effective. A system of universal medical service which offered everyone a type of medicine frozen at its less advanced stages would in the end do more harm than good. It is necessary to leave flexibility for experiment and to clear the channels between research and the general practitioner.—
George Soule, Editor, The New Republic, New York.

The thought expressed in the first paragraph of Dawson's paper is extremely important not only as it applies to medicine but to other postwar problems. Many of us were engaged in informal discussions and in thinking about postwar problems before we got into the war. Since then, everyone has been so busy with war tasks that we have pushed aside such thoughts of the future. More recently I have noticed a tendency both in Great Britain and here to clarify the postwar aims. The speech of the Vice President on May 8th was a notable example as also were the later speeches by the Under Secretary of State and the Ambassador to Great Britain. In the fields of medicine and public health there is great need for relating our immediate problems to the postwar ones.

I agree with a statement of Dorothy Sayers that it is important to realize that

the future does not exist "in the future," vaguely and far off, but here and now. "Second by second it is upon us." It is the men who are living through the collapse of one era who will determine the nature of the next. When things look dark and difficult, there is a natural tendency to procrastinate—to push the future away into the future. If we do that, the aim we set out to achieve will remain exactly where we put it, far away in the future.—*Thomas Parran, M.D., Surgeon General, U.S. Public Health Service.*

There are many in America who believe, like the Pharisee, that we are "not as other men" and that the problems and plans of medical and hospital service in other countries have no counterpart in the United States. In social dislocation and adjustment, however, war seems to be no respecter of persons or peoples. The reorganization of British public and private health services on a free, flexible, and interdependent basis as forecasted by Lord Dawson should be of interest to all Americans who are trying to explore the boundaries between governmental and voluntary institutions in this country.—*B. C. MacLean, M.D., Director, Strong Memorial Hospital, Rochester, N.Y.*

I was impressed by the recognition given to the fundamental fact that—in the words of Sir George Newman—we must consider not only the causes and conditions of disease but the causes and conditions of health as well. Although, as Viscount Dawson says, the idea has been under consideration for a quarter of a century, it yet remains a part of abstract rather than of objective thought in most of this country.

I was intrigued by the close similarity of the principles of organization which the article discusses as applicable to England to principles which might well guide organization in much of our own country.—*E. L. Bishop, M.D., Director of Health,*

Tennessee Valley Authority, Chattanooga.

Lord Dawson's article is important to this country not so much in its proposals for specific administrative organization which would perhaps not be applicable to our political structure, but rather for the objectivity with which he appraises present institutions in terms of their capacity for adaptation to the needs of the future.

In this country it is already becoming apparent that the rapidly developing shortage of medical personnel will require a rationalization of medical practice if the needs of the civilian population are to be met even on a minimum basis. It becomes extremely important that, in meeting the immediate crisis in the medical field, we look forward to the time when emergency measures can be translated into a long-time, progressive program for meeting long neglected health needs. While preoccupation with long-range programs for meeting long-standing problems should never be permitted to impede or delay the solution of immediate emergency problems, there is an even greater danger that the policies affecting emergency medical care during wartime will be largely predicated on an effort to assure the reestablishment of the *status quo ante* in the postwar world. . . .

—*Fred K. Hoehler, Director, American Public Welfare Association, Chicago.*

I like the emphasis that his constructive thought places on the setting up of "semi-autonomous executive bodies, on which the Government is strongly represented and otherwise consisting of those who have the requisite knowledge." I like too the phrase he used in saying that preventive and curative medicine "should work together in double harness with the guidance but not the governance of the State."

Thoughtful men should certainly turn their minds to the reconstruction period that

is surely coming. We do not need to detract anything from our war effort in so doing. . . .

In this country we have large segments of the population who are cared for medically at public expense. If this care were satisfactory, of good quality, ably administered, and adequately paid for, I do not believe the medical profession would be as doubtful as it is that the officials of organized society are able to "deliver the goods" in undertaking any large-scale social medical program. . . .

. . . I wonder if we all wouldn't get farther in benefiting society as a whole if we made good the services that are already established, made work the laws that are already on the books, rather than push our ideas into molds that experience has shown to be fragile when handled as they must be by human hands.

I know that this stamps me as a reactionary though I very much dislike that habit of mind. I merely suggest that the difficulties we encounter in recodifying the pauper laws of the Elizabethan type which we have in Connecticut are the same as those we would encounter in administering newer ways of medical care that are foreign to the habits of our people. I firmly believe that we could learn better how to make idealistic programs work if we found out how to better the framework of our present system.—*James Raglan Miller, M.D., Surgeon, Hartford, Connecticut.*

Great Britain is fighting for her very life, yet she is planning for the future, confidently, methodically, and vigorously. By contrast, our circumstances are much less acute than hers, yet we seem unable or perhaps unwilling to face as forthrightly our current problems in the health field. . . . We are fighting a war because we mean to win the peace. Security of the individual—in the economic and social as well as in

the political fields—is among the highest aims of the peace. Preservation of health and protection of the family against costs and losses which illness brings in its wake must be carried to higher levels of accomplishment than obtained at the beginning of the war. . . . The health of our people, and especially of our children, is one of our most precious and also one of our most neglected social assets. As we plan to strengthen health services, we shall incur grave dangers unless we ponder the full meaning of Lord Dawson's words: "War does not so much produce social changes as hasten the fruition of those already in seed or bud."—*I. S. Falk, Director, Bureau of Research and Statistics, Social Security Board, Washington.*

So many striking ideas and ideals appear in the article that it is difficult to isolate only one or two of them for comment. The two central themes which he emphasizes in his paper are equally important in American practice. They are:

1. Organization has not kept pace with ideas.
2. It is here that medical planning is up against its crucial difficulty, in that it requires collectivism for its fabric and individualism for human relations.

In these two precepts it seems to me that Doctor Dawson epitomizes the whole problem in England as in the United States.—*Abel Wolman, Dr. Eng., Professor of Sanitary Engineering, Johns Hopkins University.*

It [the article] is particularly significant for us at this time when the problems of medical care and of health protection are becoming increasingly acute and will require careful thinking for their solution. It is unfortunate that no such leadership as that of Lord Dawson has as yet appeared on the horizon of American medicine.

I am particularly struck with the propo-

sitions which Lord Dawson takes for granted: "That the practice of medicine should be occupied not only with those disabled by sickness or accident but also, if not primarily, with the building up of health, and that for this extended purpose our medical services have become too haphazard and incoordinate in their arrangement." And that the care of the community health should be considered parallel to the care of the community's education and that the provision of the proper facilities such as health centers and hospitals must, like that of schools, "correspond to the distribution and needs of the population." Statements such as these, which will probably go unchallenged in England, if uttered here by any representative physician would immediately plunge him into a bitter controversy with organized medicine. This is an indication of the distance which British thinking has outdistanced ours and of how far we must still go in educating the rank and file in American medicine and even the public itself to an

appreciation of the acuteness of our health problem.—*Louis I. Dublin, Ph.D., Metropolitan Life Insurance Company.*

Health centers are an old pet of Lord Dawson's, and probably no one thing that could be done at the present time would contribute more to produce positive health, the ideal for which we aim, than to set up numbers of them all over the country. A good place to start them, as he says, would be in connection with industrial plants.

There is other stimulating matter in Lord Dawson's address which has its application to this country. His emphasis on mutual cooperation between physicians and their hospitals instead of the present wasteful individualism; on the necessity for more hospitals and more clinics and their planned geological distribution; on the principle of insurance and of its nationwide application as a means of paying for health services; all these are matters of greatest importance in America as in England. . . .—*Miles Atkinson, M.D., Physician, New York City.*

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CHAPTER II. HOSPITAL SERVICE

I. The Hospital: Expediter or Obstructor of Science? *by James A. Hamilton**

A SERIOUS lag exists between the status of medical knowledge and its application in the diagnosis, treatment, and prevention of illness. While medical knowledge is striding forward in seven-league boots, its application often trails far behind. This is an adverse commentary on our capacity for social organization in the United States.

Accompanying this lag is a sophistication of the public which displays a feeling of ownership with inalienable rights and privileges in the facilities and skills available. Acquiring new experience by repeated contacts, the public has adopted a critical attitude which no longer is awed by an appreciation of unfamiliar mystery; which no longer accepts a doctor because he holds a state license; which no longer is content with a general practitioner; which no longer accepts a hospital because it exists; and which is no longer confined to accept the medical care of a given community but which may seek satisfaction elsewhere within the state or nation.

Medical statistics in connection with the draft indicate startling health deficiencies in the youth of the nation which not only could have been corrected but which could have been prevented easily if existing medical knowledge had been applied. For many years x-ray has made it possible to learn of the early onset of tuberculosis and thus allow therapeutic measures to be taken in sufficient time, and yet only a small portion of our population secures such a current review. Sections of our country, particularly in rural areas, have no skilled phy-

sicians or hospital facilities whatever. Many so-called hospitals are ill equipped to permit the physicians of that community to carry out modern medical science for the benefit of the surrounding inhabitants. Equally so, industry is begging urgently for extension of industrial medical practice to permit current examination of their employees, clinics for workers requiring acute assistance, and a current review of industrial hazards in their own particular plants in order to prevent unnecessary spread of industrial disease.

Yet using a world-wide average our people are remarkably healthy. Sufficient evidence has been arrayed to attest that at present our country enjoys the largest and most effective health system of any country in the world. No system in the world possesses comparable facilities, gives as fair and as equal a chance to secure its benefits to all classes of people whether you group them economically, politically, by creed or color, than the one available in this country.

However, we in the United States are not content with world-wide standards, and rightfully so. The war has brought in sharp focus an extensive awareness of individual health and the advisability of its maintenance. Evidencing itself in a rapidly increasing demand for health care, in hospitalization alone it exceeds already the entire capacity of available facilities and gives no indication of retardation in spite of any economic or political barriers.

Why the significance of the hospital?

* Adapted from *Yale Scientific Magazine* 20:9-10, 16, 20, 24, 26, 28, Nov. 1945.

Merely because the advancements in medical science and the arts of medical service have made it no longer possible for any one physician to possess more than a fraction of the available knowledge and skills. Correspondingly there has developed an increasing dependence of the physician upon associated services for the practice of his science. The material facilities and the technical personnel required in the diagnosis and treatment of disease have grown substantially. Therefore, the capital investment in operating cost of medical service has been enlarged beyond the means of but what a few individual physicians could supply. Good medical care cannot be offered the people except through the medium of readily available and good hospital facilities.

Whether we like it or not, the frontier of medical care lies within the walls of the hospital as a medical center. The community hospital represents common ground upon which patient, community, and professional groups can meet to apply their knowledge. Will the hospital be allowed to become a laggard and hindering bottleneck to the application of medical science or will it be expected, permitted, and encouraged to become an expediter in the enlargement of the frontiers of this applied science? What are some of the barriers to its effective utilization and how can they be overcome or diminished?

SOME BARRIERS

1. *Haphazard Location of Hospitals.* The modern voluntary hospital (supported by voluntary as distinct from public funds) comprises the large majority of the hospital units in the country, and is a praiseworthy result of a sincerely interested philanthropy. It is a monument to the generations of men and women who have poured years of work and devotion into service.

This monument should not be allowed to perish. Yet the very emotional basis of the hospital's being has resulted in haphazardness of its establishment and location. There exists a multiplication of hospitals in large areas of population where the economic status tends to diminish the quantity of medical care required. On the other extreme, large areas of our country of low economic status, with a greater need for care, have little or no facilities whatever. In some communities there have developed hospital facilities far beyond their immediate needs under the emotional strain of donors of large gifts and the small community's urge to have the best within the country, thus duplicating facilities nearby. Yet as a whole there are insufficient hospital beds to meet the demand.

2. *Improper Construction of Hospitals.* With a rapidly changing medical science, hospital facilities are usually obsolete or a serious handicap within ten years. The majority of buildings reflect the strong likes and dislikes of a local board of trustees who have made their decisions, from an untrained background, for the needs of caring for the sick. The inflexibility of the layout, under pressures of later years, results in hodgepodes of expansion demonstrating the original lack of vision and the growing needs of a given community, and reflecting very closely strong pressures by individual physicians for space to care for their own particular specialties.

3. *Limited Number and Poor Distribution of Skilled Personnel.* Medical science has advanced so that each physician possesses only a fraction of the available knowledge and skills. Hence there has been created a large group of uncoordinated specialties with the necessity for the patient to see many specialists, and the specialists requiring many patients to secure their income. There has developed the inevitable

separation of patients and physicians. As a specialist increases in skill and reputation, he tends to widen the geographical areas as a source of patients, to raise his fees to become selective, which in turn widens the area.

Moreover, the doctor has specialized in a functional manner as well, delegating more and more of his former functions to the hospital house officers, nurses, technicians, medical social workers, and the like, widening still more the gap between the doctor and the patient.

For the most part, health organizations must be manned with a very limited number of skilled personnel. These fields have not attracted or trained enough workers to keep up with the need for them. The majority of effort is furnished by less skilled and many untrained workers who have been willing to accept the lower wages available either because of their lack of opportunity elsewhere or prompted by real urge to be of service to their fellow beings at a sacrifice. Here again, the skilled personnel tend to become concentrated in the large population centers, with numbers in some groups in normal times beyond the needs of a given locality, while other areas of the country are in sore need of any skilled workers at all.

4. *Lack of Integration of Health Agencies.* Likewise a similar specialization has been extended toward the creation of a number of separate organizations for the furnishing of some phases of health service, each one searching for a larger place in the sun of recognition. Hospitals, outpatient clinics, public health centers, visiting nurse associations, crippled children's societies, mental hygiene associations, and many other voluntary and public welfare organizations affecting the care and prevention of illness now exist. Each agency continues in most areas to serve primarily the interests

of its own particular social, religious, or other group; to maintain its own system of statistics, accounting, purchasing, collection, public relations, and public education; to conduct its own social service unit, school for nurses, educational, recreational, and other adjunct services; and to maintain its own complete outpatient service in which may be duplicated a ridiculous number of special clinics.

This disjointed conglomeration of health agencies is uneconomic, duplicating, and wasteful. The high quality of medical care cannot be maintained and the volume of health service cannot be adequately extended to the great mass of the public if such isolationism is allowed to continue in its present form.

The opportunities for cooperative and coordinated voluntary hospital community service are legion, but in many large communities the voluntary hospitals continue to act as though they were competitors rather than partners. Therefore, major surgery should be applied to the structure of distribution and elimination made of the overlapping, handicapping vested interests.

5. *Lack of Trained Management.* Hospitals for the most part being in small units, less than 100 beds, usually are managed by a graduate nurse primarily trained for bedside nursing who doubles in the functions of administrator of the hospital and of superintendent of nurses as well. Many other places are filled by physicians, primarily trained in the care of an individual patient, who lack administrative training and who have accepted the responsibilities in this regard either because of health difficulties, or because their limited medical skill has prevented successful practice of their original vocation. Many are managed by businessmen, some of whom have failed to meet the high standards and competition

of their chosen occupation. Others have accepted responsibilities of managing institutions with no background in the field of health or no training in hospital management. The results are better than one could expect but nowhere near adequate and disturbed by exceedingly high turnover. In general, the hospital field has not attracted highly trained administrators, and very few opportunities have existed for men of ability to secure such needed training.

Policies have been determined by trustees selected because of their sincere and fundamental interests in the welfare of their fellow citizens either because they have available large funds with which to assist or because they have been successful in some particular field of endeavor and hold the respect of other members of the community. As a whole, they have accomplished remarkably fine results. Yet in many instances these individuals give the institution with which they are identified only a small amount of time due to their own busy careers, or they fall into the other extreme, concentrating upon the details of management with such a warped view that they are apt to interfere rather than assist.

All of this takes place in the management of the most complex social, medical, and business organization in the community. A hospital of two to three hundred beds not only affords personnel and facilities for the doctors to care for the sick, it also operates the largest hotel, the largest restaurant, the largest laundry, the largest schools of education in the community. Due to its importance to the welfare of the community and the complexity of its activities, it should be operated by the most competent of management.

6. *Vulnerability of Hospital Finance.* Primarily influenced by the stand-ready cost of service, available when and if needed twenty-four hours of every day of the year,

hospital unit costs have increased steadily with every advance of medical science. Although the latter may diminish the length of stay of the individual patient and therefore reduce the total outlay for the individual, they have gradually and increasingly tended to increase the unit cost of operation. Every new life-saving method has brought with it increases in associated laboratory services, special equipment expense, or skilled labor costs.

Traditionally paying wages far below those existing in other organizations in the community, hospitals have been forced to recognize the upward trend for improved personnel practices. From an era wherein salaries of its personnel normally comprised from 50 to 60 per cent of its budget, hospitals are entering a period when these items will approximate more nearly 80 per cent of the budget.

Basically required to give much of its service away, in the form of reduced rates to charity patients and to the governmental agencies who desire a discount because of the avoidance of taxation, the financing of hospitals has primarily rested upon vagaries of philanthropy to make up its deficits. Correspondingly, no hospital within the confines of the United States has been able to set its standards of quality of care by the real needs of the community but rather by the limitation of its own finance. As costs are gradually increased, philanthropy, under the burden of heavy taxation, has tended to decrease the availability of its funds for needed capital expansion and for the making up of deficits. Correspondingly closer scrutiny of operating costs has resulted many times only in lessening the quality of care. Yet based on the same urge which makes up the deficit, philanthropy has tended emotionally to duplicate its efforts for a given community. The lack of integration of health facilities has over-

burdened the community with a cost beyond that which is necessary. The more acute the financial strain the narrower becomes its scope and the more susceptible the organization becomes to the siren call of government finance with its accompanying dangers.

7. *High Cost of Hospital Care.* Steady and continually increasing costs of health care have got to a point beyond the immediately available means of a large section of the population, and undoubtedly beyond the possibilities of the sick to bear alone. High as it is, we are impressed with the constantly reiterated statements that a nation's health is a nation's wealth, but we are more likely to overlook the equally important fact that the amount of the nation's wealth and the conditions under which it is produced and distributed will go far in determining the nation's health. Adequate medical care is relative not only to professional standards but also to economical alternatives. High as it is, it is far below that which the population spends on cosmetics or cigarettes. When measured for the population as a whole, it is a small burden to be carried by each person.

Correspondingly, necessity has developed a series of voluntary insurance plans covering not only the cost of hospitalization but also of a large portion of medical care. Here again has arisen duplication which requires coordination both on a state and a national scale. Whether eventually it will maintain its voluntary character or become absorbed by governmental procedure, it would appear that economic limitations to the advancement of medical science and its applications lie within the extent to which the cost of such care can be spread over the entire population.

8. *Lack of Coordinated Cooperation.* With the individual physician's scope and volume of medical service narrowed by

the advancement of medical science, he must seek assistance by the cooperation of others. Dominated by the independence of individual thinking and activity, which makes him a successful practitioner, the resultant medical care available to the public is in the form of disassociated specialists. The latter, because of their insistence upon individual basis of fees, their sensitive jealousy, and their fear of the loss of their patients to those to whom they are referred, have limited definitely and in some cases prevented consultations so necessary in the treatment of the average patient.

Meanwhile the general practitioner, burdened with unnecessary routines, is unable to keep up with the advancements of science and is forced to continually turn to specialists for consultations or render inadequate care.

When an organization attempts to lower the fees for such consultations by a hospital inclusive rate or by group practice rates and thus remove the economic barrier to their use, one is confronted by invested interests and with the possibilities of abuse by the physicians necessitating some economic barrier or control. Thus the complete science is available to but a small portion of the community and is only partially offset by the operation of dispensaries or clinics for the medically indigent.

Then, too, lack of cohesion causes much valuable time to be spent in quarrels among the vehicles involved in the application of medical science when the effort could be better used to extend its benefits to a public urgently needing and requesting it. Of such is the current conflicting argument between radiologists, hospitals, and Blue Cross Plans as to the proper place and form of the rendering of bills for x-ray service. Traditionally part of the hospital bill, the radiologists want this charge changed in order to protect their individual fees which

they believe is necessary to good quality practice. In the meantime, while the controversy rages, the public, caring little about the decision, must do without the financial protection of hospital and medical insurance programs which could make these services more readily available to them.

9. *Lack of Coordinated Health Education Program.* Much of the reason why individuals do not seek preventive or corrective medical care rests with their ignorance as to the necessity for it and as to the available resources readily at hand, as well as the barriers to securing it.

The physician is the most potent force of health education but his influence is limited primarily to those who seek his services. Local health agencies and even statewide organizations have carried on to some extent, but only sporadically, health education programs. Nationally, very little has been done except in a few outstanding fields of disease.

Consequently, many individuals do not seek professional assistance or guidance early enough. Many disregard opportunities for correction to a large measure due to a failure to understand the significance of the delay upon their future health.

This barrier to the application of medical science will never be removed by the disconnected attempts, earnest though relatively feeble.

SUGGESTED ALLEVIATION

The failure of voluntary effort to meet pressing needs in some countries has resulted in the disappearance of the voluntary hospital and its replacement by governmental units. Such occurrence in this country would be a tragedy of the first order and would result in a distinct lowering of the quality of medical care. My urge for emphasis upon the barriers to the ap-

plication of medical science is with the hope that voluntary effort will rededicate itself and exert every means toward removing or diminishing these barriers at least partially by the following suggestions.

1. *License and Regulate Hospitals by a Designated State Authority.* Voluntary effort should accept such regulation so that substandard institutions may not be created at will, that those in existence may be upgraded to an adequate level of quality in order to restore the public confidence in all hospitals. Such governing authority, if properly representative of those acquainted with health standards, will protect not only public health but also the public pocket-book.

Such legislation should conceive of a hospital as a public utility performing public service necessary for the improvement of life. It should be permitted to have monopolistic powers, similar to those of other public utilities, as a means of securing coordination, economy, and stabilization of its resources, and should be subject to centralized support as well as regulation for the common good. Such a monopoly should not necessarily be a producer monopoly but should be of a consumer character, and its control should not rest solely with the medical profession but must be shared with other equally potent forces.

2. *Conduct State or Regional Surveys of Medical Health and Hospital Resources by an Official Authority* representative of the professions, the public, and those concerned with the operation of such agencies. Such authority to inventory the existing hospitals, to survey the need for construction of hospitals, and to develop a program for construction of such public and other non-profit hospitals as well, in conjunction with existing facilities, afford the necessary physical facilities for furnishing ade-

quate hospital, clinic, and similar services to all the people. Such authority to stimulate action for the construction of such facilities and to seek funds to carry out this construction from voluntary, state government, and federal government sources.

3. *Establishment of Voluntary Regional Councils* by dividing the country into regions upon the basis of health service. The council to secure its aims by public opinion and to be charged with the responsibility of classifying hospitals, by their ability to fulfill definite professional functions, into central base hospitals, district hospitals, rural emergency hospitals, and public health centers; of reviewing the proposals for location or extension of facilities to insure that provisions for every form of treatment, however specialized, is available; and to avoid waste of money and medical resources by clear-cut definition and division of functions in a coordinated program around the base hospitals as real health centers within the region. This regional council is not to be a bureaucratic super-agency with unlimited regulatory power; rather, an agency that functions by virtue of authority secured by voluntary agreement, knowledge, and prestige of membership. The idea is not new. Similar councils are now in operation in several large cities to a limited degree and in a limited area.

4. *Development of Research and Control of Medical Quality* through boards of medical practitioners attached to (1) and (2) above. Through centralization by regions coordinated on a national scale, research can focus concentrated attention upon the most critical needs, secure funds for the neediest, although perhaps not the most attractive to voluntary donors, and avoid duplication of research effort.

Most pertinent to our discussion, greater research and effort can be expended to secure a more accurate and usable measure

of professional quality in a given institution than now exists. Closer coordination should give opportunity for the development of quality criteria and the enforcement of such quality standards and measures.

5. *Development of Group Medical Practice with the General Hospital as the Medical and Health Center of the Community*, with a resulting coordination of physicians and of health agencies. Within the limits of the designated medical phase of the hospital, the service is to be broad in scope, not merely including inpatient care but also outpatient care, public health activities, mental hygiene, visiting nurse functions, ambulatory home care, and the like. Group medical practice, with all specialties participating, should be maintained with the physicians in partnership to offer an integrated service to the patients. In the small institution, one group will suffice, while in the larger, several groups should exist to afford the patients a choice. These practitioners should have their offices within the buildings of the hospital medical center, and an inclusive fee for their services to the patient should prevail. The obvious and already demonstrated benefits should accrue to patient and doctor alike.

6. *Extension of a Nationally Coordinated Program of Voluntary Insurance for Hospital, Medical, and Nursing Care*. Complete health protection for every individual is possible and desirable, provided it is secured by means which will insure the continuance of the advances of the past by private initiative and resourcefulness. A federal government plan has never achieved in any country our level of attainment, even when the country is as small and as uniform in character as one of our states. Surely it would be disastrous to assume it could lead to anything but lowered quality, if it were to be attempted in a

country as vast and as different in habits as Maine, Texas, and California.

A voluntary national plan is feasible and urgently needed. As a base there exists the twenty million members of Blue Cross Hospital Service Plans scattered throughout nearly every state in the union, as well as the medical society Blue Shield plans for partial medical care coverage existing in many states and being organized in many other localities.

However, action is still needed to unify this effort in coordinated organization with representatives of professional organizations, industry, labor, agriculture and the governmental agencies interested in public health and welfare.

7. *Development of a Nationally Sponsored, Financed, and Operated Program of Health Education* is needed to improve health standards and to alert the individual's interest in using the facilities to secure personal and general health improvement.

The educational projects conducted on a national scale during the war for the accomplishment of specific aims furnishes an excellent example of what can and should be done in the field of health.

Substitution of the professional promotional effort of educators, advertisers, and industry with sufficient finance or adequate voluntary aid in all the media fields of radio chains, magazines, and newspapers should be made for the hit-or-miss amateur attempts now made in a few localities. The results would achieve undoubtedly amazing public interest and benefit.

As the ancient Forum of Rome provided a common meeting place whence came the magnificent set of laws which still help to govern human conduct, as the Church provided a meeting place whence came our appreciation of spiritual values, just so the modern hospital can be made by education to become the Forum of Health.

CONCLUSION

The world will depend in large measure on America to lead it out of the chaos of war and into the new era of peace. Physical health yields in importance only to spiritual values in the promotion of the welfare and happiness of the people and in the preparation of the nation for this world leadership.

Remarkable advances in medical science have given to us the knowledge to reduce physical suffering and to improve the health of all. The medical profession will carry out, to an ever increasing degree, the serious responsibility of caring for the health of the nation through the medium of existing, expanded, and improved hospitals. Research will continue to add more benefits in the future. To ensure these benefits will necessitate ever increasing and more costly facilities and services. Up to now application of these benefits in the field of hospital care has not kept pace with scientific advances.

The era of general science and industrial development has brought about a society wherein people are now more dependent on one another and even on the state, and where, in many phases of life the social group is replacing the individual in significance. The new national and world philosophy, and a growing charitable and sympathetic instinct among men, impels them toward the day when none, great or humble, old or young, rich or poor, will fail in health for want of proper care.

In the development of any program of public health and welfare the natural partnership of several groups is generally recognized. The influence of government is greater in a period of social change. Hospitals, because of the magnitude of their contributions to the health of the people, must of necessity play an important part.

The changes brought about by the war and new conditions that will prevail after the war make it imperative that plans be developed as soon as possible.

The lag which exists between medical knowledge and its application can only be shortened by greater emphasis upon the distribution of medical care than upon its

production. The answer is in the creation of the modern hospital of the future as a truly medical center in a coordinated chain of health agencies. Only by aggressive leadership to that end, by joint action of all leaders of community life, can medical accomplishment realize the level required by the people of this country.

2. The Community Hospital and Public Health, *by Ira V. Hiscock**

THE mutual interests of administrators of hospitals and of public health programs are many and varied. They are assuming increasing importance with the pressure for efficient use of manpower and of all other resources; and meanwhile new vistas are opening with advances in the medical and the social sciences. Furthermore, public interest in health and physical fitness was never greater than today, and the benefits of good hospital care were never more generally appreciated and sought. While we as administrators work shoulder to shoulder and study our jobs more closely, we may find better ways to perform some of our tasks and broader opportunities to insure fullness of living as we look forward to peaceful days ahead. We must be flexible as well as resourceful in our approach to these challenging problems.

The American Hospital Association and the American Public Health Association have reported many forms of organized cooperation between public health agencies and agencies for the organized care of the sick. These organizations, together with the American College of Surgeons, the American Medical and the American Dental Associations, the national nursing organizations, and the federal health bureaus, have done much to develop standards. We are working toward the same goals, and services are interrelated for care of communicable and industrial diseases,

for maternal and child health, for mental hygiene, for nursing, and for social service.

Some advantages of cooperative enterprises to those participating in the programs, with ultimate benefits for those served, are economy, opportunity for extension and wider utilization of service, better quality of service, possibility of undertaking new services through pooling of resources, better use of buildings and equipment, and promotion of understanding. A well-organized and actively functioning health and hospital council, or the provision of separate councils for health and for hospitals but with interlocking representation and provision for joint sessions, greatly facilitates community planning and helps to broaden the horizons of participating agencies. In many communities, such councils or committees are identified with the Council of Social Agencies. Administrators should take a leading part in the development and perfection of the council plan which has long been urged by the American Hospital Association and the National Health Council and which is needed for the emergency, for post-war planning, and for continuing success in our democratic approach to the solution of problems for a better American way of life.

Let us consider a few details of interrelationship which require that continuous efforts be made through periodic appraisal

* Adapted from *Hospitals* 16:13-16, Dec. 1942.

als, to secure the correlation of activities in a manner to insure economy and efficiency in administration. It is of some concern, for example, that medical and hospital services tend to concentrate in population centers, while public health facilities are likewise more highly developed in urban communities. This uneven distribution creates problems of medical care and of public health. The aging of the population, with a shift in the magnitude of certain diseases, has probably not simplified this problem. The growing recognition of the importance of properly organized and adequately staffed industrial medical services adds to the significance of these factors.

Or, to illustrate other questions, if a hospital neglects to report cases of communicable disease there will be delay in the investigation of sources of spread in the community. Perhaps a more systematic plan needs to be worked out between the health department and the hospital with a sympathetic understanding developed between all concerned as to the factors involved. If a crowded hospital is unable to accept reservations for obstetrical cases, especially those from homes not properly equipped for delivery and for the early care of mother and infant, or if nurseries are overtaxed, the alert health officer and the active hospital administrator both become concerned about the hazards to maternal and child health as well as about relations with the medical and nursing groups. Can other resources be developed? Where does responsibility rest?

One of the most common problems discovered in health and hospital surveys is the inadequacy of provisions for the care of convalescent and chronic cases. Another is the striking lack in most communities of adequate medical social service, coupled with prompt referrals of discharged cases to community nursing or social service

agencies to help in the home adjustment, unless the community plan provides for some other adequate follow-up system. There are still many isolation hospitals conducted as separate expensive enterprises in communities where an affiliation with a general hospital would be an asset and frequently would provide better service at less cost. Perhaps some of those isolation hospitals could be used for more constructive purposes. There are also independently operated clinics and dispensaries, even in communities where general hospitals have more or less adequate facilities of out-patient departments. Services might be strengthened if vested interests and traditions received less emphasis, and if more thought were given on a community basis to the organization of professional staffs. And a final detail: if the official agency or some other group fails to provide sufficient operating funds for the care of indigent cases, or if accepted policies of admission to out-patient departments run counter to more liberal registration provisions of consulting health clinics, the hospital administrator is faced with burdens sometimes difficult to solve unless there is machinery for clearance of problems with mutual respect and understanding. These are some of the reasons why every community, to help solve such questions, should provide for some form of representative committee or council, where the workers in different health and hospital agencies may come to know each other, and which may serve as a center for discussion of new problems as they arise as well as for the establishment of policies and administrative plans, and as a clearing house of information for the public. Both health and hospital administrators have a stake in the enterprise.

There is almost an untilled field in the records of hospitals for practical research

study of problems of health and disease. It is hoped that after this critical period has passed this fertile source of information may be more fully explored. Meanwhile, it must be frequently emphasized that systematic records are essential for both hospitals and health agencies. Where cooperative health work involving the care and assistance of patients exists, there should be mutual availability of pertinent facts. For example, considerable information has been assembled concerning the cancer problem for the benefit of patients through the study of clinic, hospital, and vital statistics records by cancer committees in cooperation with the agencies rendering service. Joint utilization of records is common in the fields of maternal and child health, mental hygiene, and tuberculosis. Systematic use of the Social Service Index on a regional basis is increasing. Plans and policies for interchange of essential information must be formulated by the groups concerned in the light of local conditions, facilities, and personnel in order to insure that the patient's interests are protected while his welfare is promoted. Administrators may contribute much to community welfare by participation in careful studies of hospital and clinic records under scientifically controlled conditions. And while I recognize the complexity of the problem, I also believe that the proper care and follow-up of patients and the provision of constructive service may be furthered through the maintenance and appropriate confidential use of informative records in conjunction with other community agencies.

Looking further ahead, and rising above many administrative details, is it too much to anticipate that the community hospital may increasingly become a community health center? Here and there such an

achievement has been partially realized, but we have only begun to tap possibilities. It is certainly not too much to hope that there may be a clear-cut definition and division of functions of all available hospitals and medical resources on a regional basis. A recent statement of James A. Hamilton, President of the American Hospital Association, is significant in this connection.

The day is passing when adequate health service, sufficient to satisfy the critical demands of the consuming public, can be furnished by the disjointed conglomeration of health [including hospital and clinic—I. V. H.] agencies as they now exist. There is no more place for the theory of isolationism in the field of health than there is in the political and the economic realm.

Greater integration of medical practice, public health, medical education, research, and public welfare must be secured on local and state levels if the uneconomic, duplicating, and wasteful methods of the present practice are to be overcome; the high quality of medical care preserved; and the volume of health service extended to the great mass of the public who are preparing to meet the hazards of health on a group basis. Probably there would be a battle of interests to determine which element of the combination would come out on top. It does not matter much which, nor whether each element retains its identity, so long as the coordination is secured.

Within the limits of the designated medical specialty of the hospital, Hamilton visualizes the service as one of broad scope, including not merely in-patient care but also out-patient care, public health activities, mental hygiene, nutrition, social service, visiting nurse functions, ambulatory home care, and group medical practice. It is hoped in such a setting, which I believe is possible and practical, that enlarged minimum routines would include, for example, routine blood tests and x-ray examinations

not only of all patients but also of all employees who would likewise have the benefits of a comprehensive health service.

The conservation of public health has long been recognized as one of the essential functions of government, and the authorized force created by a governmental unit for health administration is the health department. In the modern scheme, supervision of care of the indigent sick may be considered as a function of a medical care division of a well-organized health department in cooperation with the hospital and welfare agencies. The voluntary agency occupies a place in a community health program for the conduct of certain important activities for which the local official agency is usually not equipped or ready, for the support of adequate standards of service—a responsibility also increasingly assumed by official agencies—for the dissemination of information to the public, and for experimentation and demonstration in pioneer fields. There are more than twice as many general and special hospitals under private control as under government ownership. The latter group, with nearly two-thirds of all beds, maintains, however, a preponderance of nervous and mental and tuberculosis institutions which are usually operating at high capacities and have waiting lists. Recognizing that there is not and probably should not be a formula for application in every community and that policies and standards are subject to change, much opportunity is offered for cooperation between both official and voluntary health agencies and public and voluntary hospitals in building the future plans for integrated community services.

Great advances in public health have come through the development of full-time county and district health departments. There are some areas which are too

sparsely populated and have inadequate tax resources for the maintenance of full-time local health departments, although a combination of towns and even of counties is feasible. The combination of a health and a medical program built around a community hospital has been found practical in some localities. The cooperative rural hospital programs of the Commonwealth Fund, the Duke Foundation, and the Kellogg Foundation, and the plantation health and hospital services in Hawaii are valuable contributions to the rural program. In some large cities it has been found helpful to locate district health centers within or in close proximity to a hospital, arrangements having been made through the cooperation of health and hospital authorities and sometimes of medical schools. In other cities and counties, health centers in districts, on a decentralized plan of service, provide for affiliation of professional staffs with health departments, voluntary health and social agencies, hospitals and medical schools in a far-sighted administrative plan brilliantly conceived and ably executed.

Finally, the hospital and the clinic have a responsibility for the education of both patients and personnel. Administrators may stimulate the instruction of mothers before they return home with their babies, a task of immediate importance during this period of emergency. Education in first aid, instruction of nurses' aides, and supervision given to volunteers should have more than immediate benefits for public information and understanding. The clinic offers an excellent opportunity for general health education through visual methods and literature, and for special instruction regarding immunization against disease. We have only begun to train workers in health education for this task. Stimulus may be given

to house physicians to take epidemiological as well as purely clinical histories, and to consider the social backgrounds of their patients in relation to other problems.

I have emphasized some of the broad general principles upon which a sound community health program is based as we visualize the whole field of curative and preventive medicine. The distinction between prevention and cure can seldom be sharply drawn. When our doctors, dentists, and nurses return from military service they are not likely to be satisfied with conditions of individual practice and competition which were previously experienced in civil life. Meanwhile, those who have carried on at home will doubtless have formu-

lated new and modified patterns of service. Provision is necessary, through the work of private physicians, dentists, and nurses, hospitals and dispensaries, official and nonofficial health agencies, for the furnishing to each individual in the community of the best attainable health supervision and medical care in a manner to promote participation by the individual in the maintenance of his own health and under economic conditions which will make the utilization of resources easy of attainment. Let us make our goals clear to the public whom we serve and say, in the words of Winston Churchill, "Give us the tools and we will finish the job," in a land of freedom and fullness of life.

3. The Preservation of a Free Hospital System, by *S. S. Goldwater, M.D.**

VAGUE fears coupled with alluring but deceptive hopes of superior government service and easy government money have cast a shadow of bureaucratic regimentation over America's free hospitals. That shadow must be dispelled if America's system of free hospitals is to be preserved. Because a federal hospitalization program has not yet been presented to Congress in legislative form, some observers suggest a "wait and see" policy. We have seen enough to know that well-meaning and vigorous government officials are facing the wrong way unawares. Why wait, then, without at least attempting to clarify the issue?

The argument for a federal program of hospital care for American workers and their dependents—there has been talk of a plan of hospital service covering the needs of 100,000,000 people—stems from three assumptions: (1) that a single, centralized hospital system under government control would ensure standardized hospital practice of a superior quality; (2) that it would give to workers and their families an am-

pler and more uniformly distributed hospital service than they now receive; and (3) that it would guarantee to local community hospitals, now somewhat uncertain as to their future means of support, an effortless financial security. But when one listens carefully to the siren song of standardization, sufficiency, and security, one detects disturbing overtones.

Take the argument for standardization. The independent, locally controlled hospital, it is claimed, is a hospital of uncertain quality; it may be good or bad, progressive or unprogressive, highly efficient or sadly inefficient. Government authority, argue the advocates of centralized control, would soon force the poorest locally administered hospitals to raise the quality of their service to an acceptable standard.

The argument for standardization is attractive, but its advocates seem to have examined only one side of the shield, for an effort to standardize by means of government decree could easily relapse into a de-

* Adapted from *Hospitals* 16:13-17, July 1942.

plorable type of regimentation—bad for the hospital, bad for its patients.

Because medicine is forever advancing, it will pay to be skeptical about proffered schemes of standardization. If the details of hospital organization and equipment and the qualifications of the medical staff are to be authoritatively defined, the controlling definitions should be so formulated as to favor progress, not to hinder it; if official decrees compel a hospital to conform to indispensable minimal requirements, they should leave it free to advance as its own genius may direct, beyond the limits of preconceived mediocrity. There are certain solid qualities in standardization, but free imagination—so valuable in medical practice—is not one of them.

The principle of standardization is not unknown to our hospitals. Standardization is the essence of such legal control over the creation and conduct of hospitals as exists in nearly all the states, and it enters also into laws governing medical practice; but the laws demand evidence of only moderate competency on the part of both hospitals and physicians, evidence which does little more than to promise protection from gross abuse and downright fraud. This may satisfy the uninformed layman, but enlightened professional opinion looks beyond the mild requirements of such laws, hence supplementary extralegal standardizing methods have been formulated by professional organizations which register hospitals for special functions, such as intern training, and which rate them according to higher professional requirements; but even these advanced requirements, just because they are made to fit ordinary, work-a-day institutions do not measure up to the best that the most favored hospital, the most talented and resourceful physicians, can do.

While voluntary hospitals are of many

grades, the bad as well as the good, with rare exceptions, apparently satisfy legal requirements. But free voluntary hospitals with unhampered medical staffs are at liberty to seek a higher degree of efficiency than the law demands or than customary legislative appropriations are capable of supporting, and by their own ambition and effort the best among them have established their recognized superiority.

An upper as well as a lower limit may be imposed upon the quality of a hospital's service by official regulations and legal standardizing processes. Can anyone believe that the best of our hospitals would have achieved what they actually have achieved if government bureaus had fixed and circumscribed their functions and, under Civil Service rules, had conferred tenure upon their medical staffs? Ask any experienced director of a government department that employs a large professional staff about the negative aspects of Civil Service rules; let him tell you how tenure of office clouds the imagination, how it cools the ardor of ambition, how it protects the drudge, how it serves home-grown mediocrity at the expense of imported talent. What the Civil Service reformer calls the merit and seniority system is hateful to the predatory politician, hence the honest citizen is prone to accept it as an unmixed blessing, yet in this selfsame merit and seniority system may be found symptoms of the creeping disease of bureaucracy, a disease which has lowered the vitality and destroyed the efficiency of many a well-meaning government organization.

The segregated budget is another device that is dear to the heart of the reformer, who properly demands light upon government operations and detests the cunning and selfish manipulation of public funds. But think of the damper that is placed upon lively medical experimentation by strict

application of the segregated budget, which under government procedure can be revised only once a year. A keen clinical or laboratory research worker is one of the most valuable assets a hospital can have; but an inventive mind that is compelled to wait until budget-making time to present a brilliant scientific intuition, and must then submit its idea to bureaucratic judges who have little or no knowledge of the field involved, is likely to seek a more promising environment. I have actually dealt with such situations in both public and private hospitals, and, believe me, there is a difference.

To direct the affairs of a hospital intelligently and forcefully, a hospital executive must be on the job, and must have adequate authority. His is emphatically an inside job. Hospital administration becomes increasingly difficult in proportion to the remoteness of the controlling power. A nationwide or even a statewide hospital system would of necessity be subject to regulations of a more rigid character than those required for a single tax-supported community hospital, locally directed. A municipal, county, or state hospital may exhibit many of the most desirable qualities of a high-grade voluntary hospital if it is fortunate enough to remain under the control of the community which depends upon it for service and if it is effectively guarded against partisan political interference. Local management can readily check the results of its decisions and is sensitive to domestic criticism; an executive to whom a single hospital is only a minor fraction of a far-flung government organization must take a great deal for granted. I learned by experience how little a conscientious commissioner can really know about the proficiency and attitudes of the individuals comprising the medical staffs of a string of government hospitals under central direction; although the

twenty-seven hospitals under my management were all located in a single city, I know now that I was blind to many of their faults. It was wonderful, working as a *La Guardia* appointee, to be free from political pressure, but that did not make me either omniscient or omnipotent. Some of the hospitals' most glaring deficiencies could not be supplied because means were lacking—the city's pressing needs were many—and defects persisted because of tangled red tape. These are faults from which no far-reaching system of government hospitals would ever be exempt.

The most potent single influence for the protection of high standards in government hospitals is the coexistence of pace-making independent hospitals; in such hospitals lie our hope and our security. The maintenance of relatively high standards in a local government hospital is favored when the hospital serves all social classes rather than the indigent only, when it is associated with a medical school, when its managing board commands the respect of the community, when its chief executive officer is a person of suitable character and training, when its normal income is augmented by voluntarily contributed special-purpose funds, and when its professional staff includes physicians who are associated with or who received their early training in liberally conducted voluntary hospitals.

The vital role of the free community hospital as an activator of progressive hospital administration seems clear, and we may now pass on to the consideration of another of the major arguments for a centralized government hospital system, namely, the claim that in quantity of service the government would do a better job than has actually been done by free local agencies in providing general hospital facilities for the nation. In my opinion, it is the free community hospital, not the government hos-

pital system, that holds the record for relative quantity as well as for quality of service.

That there are gaps in the distribution of locally sponsored general hospitals may be conceded. All regions, all communities are not equally supplied with general hospital beds at this time. This is not surprising since all regions, all communities are not equal in their economic resources, their intelligence, their medical leadership, or their social consciousness. While many communities have provided themselves amply with hospital services, others have not done so well; a few have failed altogether. It is easy enough for critics of free hospitals to point out deficiencies in the supply of community hospital beds. But is there any reason to believe that an exclusive government system would have provided a more complete service for the nation in the same period? If the free hospital system is to be judged by what it has accomplished, it is only fair that government hospitalization be subjected to the same test. Government has already claimed certain branches of hospital service for its own. How does government performance, in the fields which it has already preempted, compare with the performance of local communities that have undertaken to provide general hospital beds for their own use?

Although voluntary hospitals, especially in the East, have participated freely in the general hospital care of the indigent, it is an accepted doctrine that the care of the indigent is a government responsibility; this responsibility is widely woven into the fabric of our social laws. How many states and counties have fulfilled their obligation in this respect? The localities that are best supplied with general hospital beds for the indigent are those in which religious and charitable organizations have voluntarily taken over a substantial part of an

admitted government obligation. When the shortage of general hospital beds for the underprivileged in certain localities is offered as proof that the free system of local hospitals is ineffectual, it might be well to inquire whether the deficiency does not in reality reflect the failure of government to do its duty.

Where the lack of hospital beds for the indigent is due to the incurable poverty of city, county, and state governments, objection cannot reasonably be made to a program of federal aid, but the need of federal intervention in special cases of this kind does not justify the claim that the voluntary hospital system has failed or that the time has arrived for government to invade the territory of the community hospital and take all hospital care into its own hands. When the respective responsibilities of free local communities and of government for hospitalization are analyzed, when hospital performance is compared on this basis, the government does not emerge from the contest as the winning champion. There are communities in which the indigent are being neglected, declares the advocate of a government hospital system: government must, therefore, undertake the administration of all hospitals. As I see it, voluntary community hospitals are to be robbed of their indispensable freedom and the public deprived of invaluable services not because the voluntary hospitals have failed, but because government has failed.

Government has not done too well by the indigent in the matter of general hospital care, and its showing is no better in the major special branches of hospital service which it has taken for its own. By common consent, and of necessity, government has long since assumed responsibility for the particularly costly, because so greatly prolonged, care of the mentally ill and the tuberculous. Of the 1,300,000 hospital beds

in the United States, about half, or 640,000 are in mental hospitals; about 80,000 beds are in tuberculosis hospitals and sanatoria. The deficiencies in these two major government hospital categories are notorious. In 1938 the Technical Committee on Medical Care showed that facilities for the tuberculous were deficient to the extent of 50,000 beds, and for the mentally ill, 130,000 beds. Today's figures would differ slightly from those quoted. But are statistics necessary to prove the inadequacy of these government services? Read the reports of the institutions themselves or of the government agencies that administer them. Bad as it is, the picture presented in these reports would be much worse but for the unceasing educational efforts of such organizations as the National Committee for Mental Hygiene and the National Tuberculosis Association.

To anyone who has visited typical state mental hospitals, to social workers, to welfare officers, health officers, and hospital administrators who are in daily contact with unsatisfied public hospital demand, no argument need be presented. Year after year, the plight of the special government hospitals is emphasized in petitions to appropriating bodies and suitable budgets are patiently presented; year after year, the requested appropriations are denied. In these matters, political expediency, which often is ruthless, rules. How the general hospital needs of the nation would fare as one of a thousand items in a federal budget of bewildering complexity is anybody's guess. Could any local community be sure of the proper consideration of its needs? Could any patient expect a federal hospital system to respond sensitively to his individual need? Happy the patient who has a physician who knows him well, and who can turn with confidence to a community hospital that he knows!

I turn now to the question of the future security of the hospitals themselves. Is it true or false that voluntary or local community hospitals have no future as such? Has the time arrived for the hospital trustee, the individual philanthropist, the community chest, the industrial corporation which in the past has willingly contributed toward hospital construction and hospital maintenance, to give up in despair, leaving all hospital responsibility to the government? If this were done, hospitals would be free in a peculiar sense; they would be free to the political wire-puller, free to bureaucrats of both the hard-boiled and the visionary variety, free to competing, drum-beating pressure groups, free to harassed and bewildered budgetmakers, free to all the accidents of legislative action, and at the mercy of legislative apathy.

Security is such a winsome word, and yet—is Uncle Sam really Santa Claus in disguise? Let me make one thing clear: the government, even the Government of the United States, has no money of its own; it is an agent, not a principal, in the realm of social service. The income of community hospitals today is derived from the earnings of industry—I use the term in its broadest sense—and hospital income would come from exactly the same source under a federal system of hospitalization benefits or of hospital control. The proffered “security” of a federal hospitalization program is merely the assurance that industry (management and employees) would, under legal compulsion, systematically support community hospitals which they now support voluntarily and somewhat less systematically. Today each community, in some localities a single industry, determines its own level of hospital service and pays for it; but what it pays for hospital service is applied to hospital service and to nothing else. Under a federal plan, the level of serv-

ice would be fixed by a government agency, and all or only part of the proceeds of the supporting tax would be used for hospital purposes, as political expediency might dictate.

To the extent that community hospitals, in addition to facilities for providing organized medical care for people above the poverty line, participate in the care of the indigent, they must be aided by philanthropic gifts or by appropriations from tax receipts—increasingly, under present and prospective conditions, from taxes. Such public assistance will, I hope, always be given under conditions that will not deprive voluntary hospitals of their freedom to determine their own administrative policies, to experiment prudently with advanced organizational and clinical methods, to select their own staffs, to prune their own staffs when necessary, to aid medical schools, to cooperate with social agencies, and to educate the public in regard to the essential characteristics of good medical care.

If the government will gradually expand and improve its hospital service for the indigent, if the Federal Government will hold out a helping hand to the poorer communities for this purpose, if counties and municipalities will more fully and to the extent of their available resources discharge their responsibilities for the care of public charges in voluntary hospitals, these institutions, in collaboration with industry, can under normal conditions supply the hospital needs of their respective communities. (The emergency needs of communities affected by the growth of defense industries is a special phase of hospitalization with which this discussion does not deal.)

Speaking now from the standpoint of the individual and the family, I know of no one who disputes the desirability of the budgeting of unforeseeable hospital costs

which are so burdensome to the individual. Compulsory government insurance is a possible method of budgeting, but the voluntary nonprofit plan is a better method. The ten million Americans who have joined Blue Cross nonprofit hospitalization plans have found this out and they seem to be pleased with their discovery, for of those who are free to choose, nineteen out of twenty renew their subscriptions each year. With encouragement rather than competition from the Federal Government, the full growth of voluntary nonprofit hospitalization would be assured. In view of what has been accomplished already, it seems entirely feasible to cover the hospital needs of the great mass of the working population by voluntary participation in prepayment plans. The voluntary method has the merit of providing a stable source of hospital support while preserving the freedom of community hospitals with all that their freedom involves.

Funds are, of course, required for hospital construction as well as for maintenance, and we must face the fact that substantial gifts and large bequests from individuals, which in the past have been a principal source of such funds, are now diminishing. Must voluntary hospitals hereafter look to the government alone for capital funds? Some communities will need help, but the majority of communities should not, for under present tax conditions corporations, without great sacrifice, can give substantial portions of their gross profits to community hospitals for necessary plant development. Their willingness to do so has been significantly revealed in a number of recent hospital drives.

The degree of corporation interest and the interest of businessmen generally in local hospitals depends upon the services which the hospitals perform for the local community, and more particularly for cor-

poration and business employees. Nonprofit and semiprivate and ward prepayment plans offer the best possible means of bringing corporations and their local hospitals closer together. Moreover, participation in such plans has been recommended to workers after careful consideration by special committees of labor organizations, guided by competent economic advisors. In their own interest as well as in the interest of the community, voluntary hospitals should vigorously promote the expansion of voluntary prepayment plans on terms suitable to the resources and needs of workers. The nonprofit principle should be the controlling factor in fixing the fees of subscribers and the service payments to

participating hospitals. On these terms and in this manner, the invaluable life of voluntary hospitals can be indefinitely prolonged and hospital medical practice protected from the blight of government regimentation.

Since hospitalization is an important part of the health conservation movement, government interest in hospitalization is appropriate and desirable. Let us hope that this wholesome interest will not find expression in blind flights into the tricky and tempestuous political stratosphere, unchecked by the serviceable ballast of America's own experience in efficient hospital administration and the ways of medical achievement.

4. Problems Confronting American Hospitals, *by A. C. Bachmeyer, M.D.**

HOSPITAL administrators, individually, are constantly confronted with manifold problems within their own institutions. These, particularly in recent months, are such as to fully occupy most of their time and much of their energy, leaving but little opportunity to think and plan for the future development of even their own institution.

It is essential, however, that administrators, individually and collectively, look ahead, give serious thought to the trends influencing hospital functions, and plan to meet the demands and needs for hospital service.

Though there has been some planning for the development of individual institutions and in a few instances for community service, hospitals throughout the country have grown in a haphazard manner, largely without comprehensive plan or program. Careful planning usually precedes the construction or the extension of an individual hospital, but this planning frequently is limited to an analysis and study of the extent, capacity for service, and future pros-

pects of the individual institution without regard to its relationship to other hospitals in the community or to the broad organization of general health services in the area.

Many groups not directly concerned with the operation of hospitals are working earnestly and sincerely on plans for the extension and addition of hospital facilities to meet local or area deficiencies. These groups include farm and labor organizations and public service agencies. Health groups, and particularly hospital administrators, are aware of present conditions and should be vitally interested in comprehensive, long-range hospital planning. They have established a means by which they can pool their efforts with those of other public groups to the end that they may jointly study and propose methods by which hospital units might be integrated to more effectively and adequately serve the public need.

* Adapted from *Hospital Review* 1945, Part II, pp. 13-18.

As the result of the collective efforts of hospital administrators through the American Hospital Association, the Commission on Hospital Care, an independent public service committee, was established to study hospital facilities in the United States. It has developed a program which provides real opportunity for the hospitals of America to participate in a planning program which is probably the most important effort hospitals have ever sponsored. The Commission on Hospital Care approaches its assignment with objectivity and without any preconceived pattern or plan for further development of hospital facilities. It serves as a coordinating agency for the guidance and assistance of state hospital study groups. It urges that planning be done on the state level in order that members of the planning committee will represent local interests and be conversant with the hospital problems and conditions existing within the state. Such procedure places in the hands of those who make the plans the responsibility for their execution and further development.

But even local planners must consider broad, general policies which, in one degree or another, are applicable to most areas in the country. They must study and solve certain broad problems of hospital organization, function, and purpose before they can make specific proposals regarding the construction or extension of individual hospital units.

Although the Commission on Hospital Care has not yet formulated or suggested specific policies, there are a number of problems relating to hospital administration and organization which it must consider in its study. Some of these broad relationship problems which confront American hospitals today are outlined in the following paragraphs.

INTERRELATIONSHIPS AMONG HOSPITALS

Reference is often made to our splendid system of hospitals but, while we have many excellent institutions and more hospitals than other countries, there is actually no hospital system—no relationship between hospitals—that could be interpreted in any way as bringing them into organic working relations. American hospitals are for the most part separate and independent agencies, each endeavoring to serve the public as its controlling officers think best and its resources permit.

On the one hand, in the smaller communities and institutions hospital service is often incomplete and inadequate; essential diagnostic and therapeutic facilities are lacking and often professional service, particularly in the special fields of medicine, is not readily available.

On the other hand, in our larger cities and metropolitan centers there is often an overlapping and unnecessary duplication of services, which is wasteful of economic resources and of professional time and effort.

This is in a large measure the result of faulty planning or of no planning whatever. Individual institutions have developed their own programs and expanded their facilities without regard to the community needs or to the services available in other hospitals in the area. Unfortunately, competition between institutions has frequently operated to the detriment of a community's best interest and the medical profession's effectiveness.

In a few cities, the establishment of hospital councils has tended to bring the hospitals together and has been helpful in the solution of some of their problems. Except in one or two instances, even through this means for coordinating effort, there has been a reluctance to plan the development of hospitals upon the basis of community

need. That there is need for planning so that hospitals can work together more closely is freely admitted and it is believed this can be accomplished in a democratic way and without hurtfully interfering with the autonomy of individual institutions through the further development of community hospital councils.

In order that the functions of small institutions in small cities and towns might be extended and their services made more effective, it has been suggested that organic relationships should be developed between them and the large, more completely organized hospitals in urban centers. That benefits do accrue to small institutions through such an arrangement has been demonstrated by the program established at Salem Hospital, Salem, Massachusetts. The rural hospital programs of the Commonwealth Fund in several areas, the Kellogg Foundation in Michigan, and the Duke Foundation in the Carolinas likewise indicate the values of establishing co-ordination between and among hospitals. In these latter three instances, the benefits derived from the special activities and interests of the sponsoring foundations. In the Bingham Associates program and that of the Salem Hospital, the arrangements are self-sponsored. They have proved to be of real value to the institutions sharing in the project and consequently to the public they serve.

The development of working relationships between small hospitals and large medical centers holds advantages for each group. Such arrangements can readily be developed for professional services, diagnostic and therapeutic facilities, and administrative services as well. A system, voluntary in nature, could be developed which it is believed would suit the needs and serve the purpose as well as satisfy the desires of the American public.

Herein lies a challenge to American hospitals to develop a service that will be adequate and really available to all of the people.

FUNCTIONS OF THE GENERAL HOSPITAL

The general hospital, whose title denotes a comprehensive service, has added to its functions from time to time in accord with the demands of the advances in medical science. Some of the larger institutions render a comprehensive service, but many of them and most of the smaller institutions still fail to provide various types of service and to admit certain types of patients. Thought must be given to the manner in which they can expand their functions in order to establish a complete and well-rounded program to provide adequate care to meet the public need through an effective and economic operation.

ACUTE COMMUNICABLE DISEASES

It has been the practice to provide special institutions for the care of the so-called "contagious diseases." However, as methods for the control of these illnesses have improved and the morbidity has declined, there is less and less demand for such hospitals. Even in the largest cities, the accommodations provided in such special institutions often stand idle, resulting in economic waste and frequently inadequate service. In the light of improved nursing techniques and present knowledge of methods for the control of cross infections in hospitals, there seems little reason why such diseases cannot be cared for in general hospitals. If they are, some special facilities will be required, but material benefit would accrue to patients and personnel alike if the techniques practiced in the care of communicable diseases were followed in general hospital service.

PULMONARY TUBERCULOSIS

Many general hospitals refuse admission to patients afflicted with pulmonary tuberculosis and many insist upon the removal of patients whenever diagnostic study discloses the presence of this disease. Advances made in the treatment of tuberculosis, particularly "collapse therapy" and other surgical procedures, make it readily possible for the general hospital to admit many such patients, particularly in certain phases of the illness, but special institutions and tuberculosis sanatoria, no doubt, will still be needed. General hospitals could materially assist in the campaign for the further reduction and possibly the eradication of pulmonary tuberculosis by providing routine radiological examinations of the chests of all patients upon admission. New techniques in this connection have materially reduced the costs of such examinations. As a routine procedure, chest filming has been shown to be of greater value in disclosing abnormal conditions than is true of many other routine diagnostic procedures now generally practiced, such as urinalysis, blood counts, and serological examinations.

NERVOUS AND MENTAL DISEASES

As in the case of pulmonary tuberculosis, many general hospitals make no provision for the admission or care of the psychiatric patient. In this instance also there will continue to be need for the special institution, but there are many forms of mental illnesses which probably can be and will be better cared for in the general hospital than in an institution which devotes its service only to the care of nervous and mental diseases. Some special facilities will be required and other functions now performed for nonpsychiatric cases will need to be better developed than they now are in

the general hospital, but these provisions can readily be made, especially in the larger institutions.

There is general recognition that more can be done for the patient in the very early stages of mental illness just as in organic disease. Also, it is generally recognized that there is an interrelationship between mental and organic illness and a need for psychiatric consultation in many instances in which symptoms of organic illness appear to be of paramount importance. For these cases, it appears that the general hospital can provide a well-rounded program of service.

THE CHRONIC DISEASES

As the average age of our population continues to advance, the morbidity of the degenerative diseases steadily rises. There is a growing demand for the institutional care of patients afflicted with so-called chronic or long-term illnesses. The type and quality of care required by these patients differs little from that needed by the patient afflicted with an acute illness. The primary variation between them lies in the amount of special services they require and their average length of stay. General hospitals have been reluctant to accept these patients or continue treatment beyond the time ordinarily required for the acutely ill patient. Particularly is this true in recent years when costs have increased and when the demand for accommodations has been great.

General hospitals usually lack recreational facilities such as solaria or sitting rooms and special types of bedroom furniture best suited for these long-term patients. Such facilities should not be expensive or difficult to provide as a part of the function of the institution. They might be organized as a department in a small hos-

pital or as a separate unit in a larger hospital. It has been argued that the long-term patient should not remain in the general hospital because of the cost of service. However, the care of the long-term patient is not as costly as that of the acutely ill patient and, therefore, the general hospital could readily provide for the care of some of these patients, thereby rendering a more comprehensive service to its community. Distinction should be made between the patient afflicted with a chronic or long-term illness in whose case there is expectation of recovery or restoration to health in such degree that a return to normal living in the home can be anticipated, and the patient who will require only custodial or domiciliary care. It is not intended that the general hospital should become a home for the aged or permanently disabled.

THE CONVALESCENT PATIENT

There has been general acknowledgment of the need for better provisions for the period of convalescence from the effects of acute illness. Convalescence can be said to begin as soon as the destructive and acute phases of an illness or injury are over and improvement is shown in the patient's condition. During the past, repeated attention has been called to the responsibility of both physician and hospital to follow the patient through to complete restoration to health. Contrariwise, during recent war years there has been an urgency for early discharge of patients from the civilian hospitals. This has been particularly evident in the case of maternity patients and others with certain surgically treated conditions. Also, in other instances some of the newer therapeutic agents have shortened the acute stage of the illness.

This earlier dismissal of the patient has

made it possible for the civilian hospitals to serve a larger number of patients in the same accommodations and may not have operated to the detriment of those patients whose economic and home conditions afforded opportunity for the necessary convalescent care. But the practice generally is of doubtful value and especially so in those cases in which the patient's domiciliary environment is not conducive to convalescence.

The military services have set new patterns of treatment for the convalescent patient through their rehabilitation programs which are well worthy of serious consideration by the medical profession, hospitals, and the public. They have demonstrated the value of paying proper attention to this phase of medical care and have placed emphasis on the essential nature of convalescent and rehabilitation programs.

General hospitals might give serious consideration to these rehabilitation programs as an opportunity to extend the benefits of their service. It may not be necessary that every hospital make provisions for such service but it should be available in adequate quantity and quality in every community and some of the larger institutions might well extend their functions in this connection.

It is difficult to indicate to what extent hospitals should make provision for the care of the patient in the later stages of convalescence, that is when he is entirely ambulatory and no longer in need of intensive medical care and nursing service. At this stage of the process of recovery the specialized institution or the home, if suitable, are probably best constituted to serve the patient's needs. However, in the early stages of convalescence, the general hospital has much to offer. Here, too, it might be well to provide a separate unit or sec-

tion of the institution for such patients, or they might share the same facilities provided for long-term chronic cases.

TRAINING AND PERSONNEL

In industry, considerable attention has been given in recent years to the problems of personnel relations. In most hospitals, however, the personnel programs are still very vague and indefinite. The subject is becoming increasingly important.

Hospitals cannot afford to depend for employees upon those who cannot find employment in industry. It appears necessary that they give serious attention to the recruitment and training of individuals who have the aptitudes and capacity for a variety of services, many of an intimate personal nature, upon which the effectiveness of the institution depends. To be attractive, these positions must be made as inviting to the employee as are those in commerce or industry and must hold forth equal rewards in the way of maintenance of standards of living.

Training programs appear desirable within hospitals for at least those specialized positions for which vocational or technical schools and colleges cannot be relied upon to provide personnel. The larger hospitals might serve as the training ground for the employees of the smaller institutions which because of their relatively small staffs of workers cannot readily establish training programs.

GROUP MEDICAL PRACTICE

There are many indications that group medical practice will be materially extended. What is to be the role of the hospital in this pattern of organized medical care? Some institutions have made provision for offices and consultation rooms for

members of their medical staffs. It is not unlikely that this practice will be extended. This portends a closer working arrangement between the medical professions and the hospitals than has existed heretofore.

Such an arrangement implies new administrative problems as well as the extension of clinical and radiological laboratories and other diagnostic facilities within the hospital. It would require that the hospital become more of a physicians' workshop at the crossroads of their activities than it has been in the past. It might mean that hospitals would be the focal point of all health service in the community from which the radiant benefits of a coordinated health unit would be effectively and efficiently distributed.

There is need here for careful thought and planning.

THE RURAL PROBLEM

Though we have more hospitals and more hospital beds per thousand population than any other country, hospital service in many areas is woefully deficient or wholly lacking. This is particularly true of the rural areas. There has been a notable decline in the number of physicians in the smaller villages and distinctly rural regions during the past two decades. But almost 50 per cent of our people live in these sparsely settled regions, and they should have competent and adequate medical service.

While it would be a waste of economic resources to build hospitals in regions deficient in medical practitioners, the modern graduate of the medical college is reluctant to go to a region which has no hospital or other readily available facilities for diagnostic assistance. His education is obtained in large institutions which are well equipped with modern aids to diagnosis

and therapy. They are also staffed by able men, particularly skillful in one or another of the special fields of medicine. After his undergraduate instruction and a subsequent period of training in a similar environment, the young man is unwilling to enter upon a practice in an area in which these same facilities and consultants are lacking.

Many other complex factors influence this rural hospital problem. There is a definite relation not only between the density of population and the number of physicians, nurses, and hospital beds in an area but also between density of population and living standards, and income. There are also geographical, transportation, and communication factors to be considered. There appears to be no ready or simple solution to the problem; it merits the most careful study and offers a challenge to all those who are engaged in health services.

RELATIONS WITH THE PUBLIC HEALTH SERVICES

For many years the field of public health was regarded as being comprised of those activities concerned with the health of the mass of the people as distinct from those concerned with the health of the individual. Public health activities were restricted to general sanitation problems, food supply, quarantine measures, epidemiology, vital statistics, and similar functions. In recent years, however, there has been a growing realization that no hard-and-fast lines can be drawn between public and individual health services.

The prevention of disease and the maintenance of good health begins with the individual. While the practice of curative medicine has engaged the primary attention of the physician in the past and is still his as well as the hospital's major con-

cern, the gap between curative and preventive medicine is constantly narrowing. It appears important for the physician to give more and more of his attention to preventive measures and to the maintenance of the health of his clients. It is likewise important that hospitals integrate their services more closely with those of public health agencies.

Much could be accomplished by such a program in the case of communicable diseases, the collection and compilation of vital statistics, and the conduct of effective public health education. Case finding in tuberculosis, venereal diseases, cancer, and other diseases which are of particular interest to public health authorities is a function which every hospital could perform.

Except for statistics that can be compiled from reports made for acute communicable diseases and maternity cases, mortality statistics provide the only reliable guides we have today regarding the general health of the public. It appears highly desirable for hospitals, which serve over one-tenth of the population annually, to assist in the development of a system of morbidity reporting. Such data would furnish a much more valuable basis upon which to measure the health of the people and the effectiveness of health measures than those now used.

In view of the fact that so large a portion of the population (patients, their relatives, and their friends) are passing through our institutions each year, large opportunity exists for hospitals to share more extensively in public health education. Comparatively little is done in this connection by our institutions at the present time. Education in matters of health are notoriously of little interest to healthy people but when they fall ill their curiosity as to cause, cure, and prevention is aroused

and they, their relatives, and friends evidence an avid eagerness for knowledge. Hospitals and health authorities have an excellent opportunity for collaboration in this field.

In the field of rural health, also, there are many opportunities for integrated action. It is apparent that only through a program of combined action between voluntary and official agencies can an adequate service be developed for the people of many of the more sparsely settled sections of the country.

FINANCE

The problems of hospital finance loom large. They are perennial and continuing in nature and confront American hospitals in all phases of program planning. The rise in cost of hospital care has been continuous throughout the years. Each advance in medical science, while bringing improvement and extension to hospital service and untold benefits to the sick and injured, has also increased the cost of hospital operation. The problem of balancing the budget continuously worries hospital administrators and managing boards.

Hospitals, throughout history and particularly since the turn of the century, have been the recipients of the benefactions of philanthropists. Many of the buildings they occupy stand as memorials of such gifts. While in the aggregate their endowment funds amount to a very considerable sum, comparatively few institutions derive much income from such sources with which to meet operating expenses.

It is believed that there will always be opportunity for philanthropic endeavor through hospital service; however, it is also true that current trends indicate that hospitals will be increasingly dependent upon earned revenues. Consequently, it is im-

portant that they study carefully and adopt the best business practices in conducting their manifold functions.

Although the American Hospital Association has published a manual on accounting and for a number of years has urged its members to adopt adequate accounting procedures, the number of institutions that have done so is comparatively small. Many hospitals do not follow a budget system or know the costs of their service and many practice only pants-pocket accounting. In most instances, the rates charged by hospitals are not based upon true costs of operation but rather upon what other hospitals charge and upon what it is thought can be collected from patients. Seldom do hospital charges contain any loading for depreciation of structure or equipment.

It is urgent and imperative that hospitals generally pursue better business methods. This is particularly essential as the number and extent of philanthropic gifts decline and as hospitals become more and more dependent upon earned revenue.

Blue Cross Plans, arising during the depths of the depression, have caused the greatest advance in hospital financing in all time. Not only do they provide the public with an equitable and ready means of prepaying the cost of hospital service, but they also have been of great benefit to the hospitals. Though the growth of these plans has been remarkable, there is great need for the further extension of their benefits to cover the entire hospital bill. They have a responsibility for rapid expansion into areas as yet not covered as well as more complete coverage in regions now being served. There is also need to develop a means of coverage under Blue Cross or a similar plan for those of low income who are not in the relief or indigent class but who cannot af-

ford to participate in the plans now established. In some areas Blue Cross Plans are the greatest single source of income to voluntary hospitals. This might be regarded as a desirable goal toward which Blue Cross Plans and hospitals alike should strive.

There has been an increasing recognition of the responsibility of government to provide hospital care for the indigent but there is not as yet any clear-cut understanding of the division of responsibility in this connection between government and voluntary agencies. This is particularly true, at the local level at which community authorities frequently endeavor to purchase hospital service at less than the cost, thereby only assuming in part the obligation imposed upon them.

This in part at least is due to the historic development of hospital service; but in the light of modern trends, there is need for careful study and correction of practices. The financial relations between voluntary institutions and governmental agencies at local, state, and federal levels need to be materially developed. It appears unrealistic to expect voluntary hospitals to assume a portion of government's responsibility for the care of indigent patients just as it would be indefensible for the voluntary hospitals to charge a premium for their service to these patients.

BROAD PLANNING ESSENTIAL

It appears that a combination of many complex factors will determine the future status of American hospitals. Important among these are anticipated organizational and administrative changes. Any redefinition of the functions of the general hospital, the interrelationships among hospitals, the coordination between voluntary and official health agencies, the working arrangements between the professions and hospitals, the role of the hospital in the pro-

vision of public health service, and the types of patients which should be served in general hospitals, will greatly affect the character and the future of the voluntary hospital. Although ultimate changes cannot be fully predicted, it is important that their future effects be anticipated in planning the extension of hospital service.

Socio-economic factors determine to a large extent the use of hospital facilities, thereby furnishing a basis for measuring bed need and financial outlook for an institution. But they must be analyzed in combination with the intangible organizational changes which will be molded into the hospital structure and give it life and virility.

Experiences during the past war years have placed hospitals in an enviable position. Their finances are in good order; they have benefited by unprecedented advances in medical science; they have established public confidence; and because of recent scarcity of building materials now released, they find themselves on the threshold of a great expansion program. There is real opportunity for hospitals to move rapidly toward an integration of service which appears desirable for both public and hospitals.

Unfortunately, a great deal of planning based solely upon local conditions, individual prejudices, and, not infrequently, selfish motives is now in process. Shortsighted planning of this type can render only a disservice to the American hospital structure and will ultimately result in placing individual institutions in untenable positions. However, coordinated effort will lead to a strong hospital system and benefit individual institutions and the public alike.

Voluntary organization for the systematic distribution of hospital service to solve a public problem and provide a public service appears to be within the reach of hospitals today.

5. The Right Road to Hospital Care; Recapitulation of the Commission's Recommendations*

HOSPITAL FUNCTIONS

1. General hospitals should provide the essential services necessary for adequate treatment of patients who are admitted for care.

2. General hospitals should assume responsibility for improving service through the addition of new equipment and the adoption of new techniques, so that all patients will be assured of the most effective and comprehensive service possible.

3. Governmental general hospitals operating in areas not served by nongovernmental hospitals should function as community hospitals, providing service to paying patients.

4. Governmental agencies should use voluntary hospital facilities to the greatest possible extent.

5. General hospitals should care for patients with tuberculosis and other communicable diseases, nervous and mental disorders, and chronic ailments, and for patients convalescent from acute illness and injury.

6. Integrated programs should be established between general hospitals and existing specialized institutions so that scientific equipment and professional personnel in the general hospital may aid in treatment of institutional patients.

7. General hospitals should coordinate their efforts with those of other community agencies concerned with the prevention and treatment of disease; hospitals should aid in health education.

HOSPITAL ORGANIZATION

8. Governing boards of voluntary hospitals should be broadly representative of the public they serve.

9. Governmental and church hospitals

should be under supervision or have counsel of boards representing the public and the professions.

10. Proprietary hospitals serving areas needing hospital service not otherwise furnished should be converted to true non-profit status.

11. Full authority and responsibility for administration of the hospital should be vested in a single administrative officer, with a direct line of authority through directors of professional and nonprofessional services to staff and employees.

12. There should be a formal medical staff organization in every hospital, with membership standards, regulations governing professional conduct, and a system for continuing evaluation of medical quality. Liaison arrangements for discussion of professional problems among staff, board, and administrator should be established.

13. Whenever possible a dental service should be established with provision for dental examinations of all patients, looking toward elimination of dental infections.

14. Formal standards of nursing service should be maintained by all hospitals, with a department head having full authority and responsibility.

15. Members of the nursing staff should have ready access through regular channels to all levels of departmental authority.

16. The nursing staff should be large enough to make special duty nurses for individual patients unnecessary; adequate supplementary staffs of nonprofessional nurses should be employed.

17. Qualified personnel for all hospital

* Adapted from *Mod. Hosp.* 67:43-45, Nov. 1946. The full report of the Commission on Hospital Care has been published as *Hospital Care in the United States*, by the Commonwealth Fund, 41 East 57th Street, New York 22, N.Y.

services should be selected on the basis of ability to perform regularly classified duties.

18. There should be a continuous program of employee orientation and in-service training.

19. Wages, hours, vacations, leaves, and other working conditions should conform to accepted standards in the community.

20. An adequate health service should be maintained for employees.

21. Ethical responsibilities of the professional and service staffs should be defined in relation to the institution, patient, and medical profession.

22. A public relations program should be maintained to interpret the hospital to the community and the needs of the community to the hospital.

EDUCATIONAL ACTIVITIES

23. Administrative internships should be developed in hospitals offering broad service programs.

24. Governing boards should afford opportunities to the administrator and his assistants to improve their professional qualifications.

25. Affiliations with medical colleges should be established to provide intern and residency training in medicine and dentistry supervised by medical faculty members.

26. Carefully planned medical staff conferences, including critical audits of clinical results, should be attended by all staff members.

27. Groups of hospitals should arrange conferences for staff members in the various specialties.

28. Medical faculties should provide consultants for the staffs of hospitals in small communities and rural areas; medical schools should offer short refresher courses

in general medicine, surgery and specialties.

29. The number of nurses' training schools should be reduced to 750 as soon as practicable; further reduction to 300 schools would be desirable. Schools of nursing should be related to colleges and operated only by hospitals having at least 150 patients.

30. Hospital schools should develop affiliations with other nearby general and special hospitals and public health agencies maintaining adequate standards of administration and clinical service, to provide students with comprehensive work experience; service in such affiliated agencies should be supervised by a member of the school faculty.

31. Nursing school budgets should reflect operating costs and the value of services rendered by students.

32. A minimum of one year of college or its equivalent should be required for admission to nursing schools.

33. Studies should be made looking toward reduction of the nursing school curriculum to two years.

34. Selected nursing schools should be urged to accept more men.

35. Admission to nursing schools should be on the basis of qualifications, without regard for race, creed, or color. Schools should be established in all acceptable Negro hospitals to supply the need for Negro nurses.

36. Schools for vocational nurses should be established and operated by hospitals in conjunction with professional schools; separate vocational schools may also be needed.

37. Consideration should be given to the establishment of a national licensure or registration bureau for professional and vocational nurses; state registration laws should be studied and revised.

38. Hospitals with facilities for training

technical personnel should establish and conduct such courses.

39. Hospital staffs should be encouraged to engage in scientific research and clinical investigations aimed at advancement of knowledge and improvement of service.

RELATED ACTIVITIES

40. The hospital outpatient department should be developed as an integral part of the hospital and the health service of the community.

41. Medical social service should be organized as a separate hospital department coordinated with professional, nursing and technical services and educational activities.

42. Hospital diagnostic facilities should be available to the local medical profession as well as to the hospital staff; diagnostic clinics should be established in the interest of both general practitioner and patient.

43. Whenever possible, hospitals should provide office space for members of the medical staff; expenses of space and equipment used by physicians should be shared satisfactorily between hospital and physicians.

44. Hospitals should combine their efforts with the medical profession for the extension of group medical practice and arrange for use of equipment and technical personnel by organized groups of physicians.

45. Hospitals should provide facilities and services to aid patients to return to full mental and physical health; such services should be correlated with community rehabilitation centers.

46. Close integration of hospitals and public health departments should be maintained; whenever possible, the health department office should be located in the hospital. The health officer should be a member of the hospital staff and participate in staff activities.

47. Health councils should be established to coordinate the work of hospitals and public health agencies.

MAINTAINING STANDARDS

48. Hospitals should comply with essentials set up by recognized standardization authorities for the various types and sizes of institutions.

49. The medical staff should make regular audits of professional results.

50. Hospital authorities and administrators should seek to develop human relationships which will inspire all to give their best efforts in the interests of patients and the public.

51. All institutions providing overnight bed care to the sick should be licensed to operate and subject to inspection by a single state authority, preferably the health department with the aid of a professional advisory group.

52. Rural hospitals should be built only in accordance with careful studies of all phases of community and area needs and only when high quality medical care can be maintained. If necessary, special inducements should be offered to interest competent physicians and nurses in rural practice.

53. To provide health needs in communities where it is impractical to maintain minimum sized (50 bed) hospitals, health and medical service centers should be established and affiliated with institutions offering comprehensive service.

54. Adequate hospital care should be available without restriction to people of all race, creed, color, and economic groups. Facilities for Negroes should be provided in all hospitals; where segregation is required, service for Negro patients should be equal in every respect to that provided for white patients.

55. Qualified Negro physicians should

be admitted to membership on hospital staffs and given full opportunities for education and advancement. The number of Negro nurses should be increased.

FINANCING SERVICE

56. Adequate hospital care should be available to all people regardless of economic or social status; maintenance of service should be the responsibility of residents of the area; tax funds should be used to provide care for indigent patients; federal subsidy of hospital care should be used to equalize service among the various states.

57. A single state agency should integrate hospital programs and allocate state and federal funds to governmental and voluntary hospitals within the state, according to an integrated state plan.

58. Nursing education and research activities in hospitals should be supported by tax funds.

59. Facilities and personnel must be expanded to meet the demand which would result from a comprehensive hospital payment plan.

60. Governmental and nongovernmental agencies should combine their efforts to

promote voluntary participation in non-profit prepayment plans until some other satisfactory and comprehensive means can be developed to provide high quality care.

61. Any legislation which prescribes that hospital care insurance shall be obligatory should permit its purchase from any agency which conforms to established standards of service and operation.

62. Hospitals should arrange for integration of services to make consultation services and part-time service of radiologists and pathologists available to small institutions.

NATIONAL NEEDS

63. The United States needs 195,000 additional general hospital beds, costing \$1,800,000,000 to build and \$500,000,000 annually to operate.

64. There is also a need for 45,000 additional beds for tuberculosis in or near general hospitals. Additional facilities for mental and chronic patients are needed but detailed study of present deficiencies must first be made.

65. The American Hospital Association and U. S. Public Health Service should continue the work begun by the Commission on Hospital Care.

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CHAPTER III. RURAL HOSPITAL AND HEALTH FACILITIES

1. A Real Health Program for Rural America, by Carroll P. Streeter*

FARMERS in this country have been putting up with a kind of health service that city folks would simply have ceased to tolerate long ago. They have gone without health care very much as they have put up with having no bathrooms or running water. It was just supposed to be the way that country life was.

Everybody knows that farmers have had relatively few doctors, especially young doctors. Everybody knows that specialists have stayed in larger cities, often a hundred to two hundred miles from many of the farm people of their states. Approximately 40 per cent of our counties are not yet covered by a local, district, or regional public health unit, while many do not have so much as one public health nurse.

Many farmers in the country still live an hour from the nearest hospital in summer and two hours or more in winter—with no ambulance service. Still more farmers do not make full use of the doctors and hospitals they have, because they fear the cost. You don't have to go to the Deep South to find a rural health problem, as most people seem to think. You can find a *cost* problem in the best county in Iowa.

The results show up clearly. Here are three striking comparisons between rural and urban health conditions. In infant mortality, rural America lost seven more babies per thousand live births in 1943 than cities did. It lost seven more mothers per thousand live births. Incomplete figures which *Farm Journal* has just obtained from Selective Service show that 4 per cent more white rural boys than city boys were rejected in the draft on physical grounds

alone. For Negroes, 7 per cent more rural than city boys were rejected.

All of us, farmers included, have taken it for granted that this is the way farm life is. Farmers have accepted health risks much as they have weather risks. But they aren't going to much longer. They've decided that *from here on they are going to live as other Americans do*. They are going to have essential home conveniences, electricity, high school and often college education for their children, good roads, something less than a 16-hour day—and health protection.

They are making the important discovery that to get adequate health service they will have to *plan* for it and then go after it in an organized way. Just waiting to see what will happen won't get them anywhere—that's been proved enough. That's what they have been doing all these years. And trying to do something about it as individuals won't get them far, either. They see now that this is a community job.

I could cite many examples to show that this is a genuine trend, but I will mention only one. It affected the whole state of Nebraska. Back in 1940, some 1,700 Home Demonstration clubs of farm women in that state studied a University of Nebraska bulletin called *Do We Want Health?* These groups of farm women got so stirred up that they finally got a state health committee organized. It included the state medical and dental associations, the State Department of Health, the University, and—this is important—a goodly number of farmers and farm women.

* Adapted from *Hospitals* 18:25-28, Dec. 1944.

This committee studied the rural health situation in Nebraska—both the lack of health facilities and the need for some better means of paying health costs. Then it set up a number of community experiments, which have continued and which are doing well today. Because the touchy question of medical prepayment plans was involved, the University soon got cold feet and would gladly have retreated to the safety of a “health education” program. Farmers, however, wouldn’t permit it. At one crucial meeting of the committee, forty farmers drove to the meeting from all over the state, some coming as far as four hundred miles. And they kept their program on a bold, courageous level.

The most significant recent revelation of the farmers’ awakening to their health problems came at the National Rural Health Conference held by the Farm Foundation in Chicago. For three days the representatives of all three of the big national farm organizations—the Grange, the Farm Bureau, and the Farmers’ Union—sat with a company of health leaders to discuss the rural health situation and what could be done about it. Then they went home to determine the stand which their national organizations will probably take at their conventions this winter. In the past, the big farm organizations have largely overlooked rural social issues and have concentrated on farm economic problems and farm legislation. There is every indication, however, that from now on they will pay some real attention to a rural health program.

What all of this means, of course, is that the time is here—and now—for the health leadership of this country to recognize this attitude in rural America and to team up with farmers in doing something about it. What can you do?

1. Very obviously, you can support any

sound movement to put good rural hospitals in areas that need them and don’t have them. You can do something to help the many substandard hospitals in rural areas to become safe places for a sick person to go. You can help rural hospitals establish outposts and emergency stations in outlying areas. You can encourage rural hospitals to provide an ambulance service for rural patients. There are many things you can do. I will not attempt to enumerate them all; your Commission on Hospital Care will doubtless produce the actual program.

The thing that the six million farmers of this country *would* appreciate, is to see you doing *something* that looks like a serious attempt to help them have good hospital service.

2. You can help farm people find a way to pay for health care. The most important part of this job is to support the farmers’ attempt to have an adequate income. Farmers could use some help from city people in this regard. Right now most farmers are better off than they have been in many years. A decline in farm income appears certain, however, beginning with 1945. Within a few years farmers will have the most burdensome surpluses they have ever had. The present happy situation is probably temporary.

Over a period of recent years, farmers have had but 12 per cent of the national income, although they make up 25 per cent of the people. This nation cannot remain sound when that large a block of the population has an income that far out of line. Until farmers can have an income approaching that of other people in this country they will be unable to have adequate health service except by government charity—and they don’t want charity.

The second part of the job is to help farmers develop a plan for paying for medi-

cal, hospital, and dental service. Most farmers want no part of a compulsory health insurance plan. They will resist it, and if forced someday to go into one, they will go under protest. Most of those who are aware of wanting any kind of prepayment plan want to tackle the job on a voluntary, cooperative basis. That is what their letters tell *Farm Journal*, and they come from all over the country. And it is corroborated by hundreds of personal interviews over a period of years.

Most farmers of the United States are in revolt against government planning, government interference with their private lives and businesses (except as war makes necessary), and government paternalism. They want the government to run as few things as possible and they think that it runs too much now. They are fed up with the AAA and the OPA.

Take this comment from Ray Anderson, *Farm Journal's* midwest editor, who has just travelled through the western range states visiting with ranchers, sheep men, and dry-land farmers. "These folks hate fences," he reports. "They never did like 'em, and they use 'em only where and when absolutely necessary. Most of all, they want to build their own fences and place them where, in their opinion, they will do the most good. That explains why the western cattleman fights against the planners who would like to map out how they should be made to live and run their businesses."

Says Fred Warren, who operates 300,000 acres in Wyoming: "We ranchers believe that the more the government messes into things the worse they get. We are not sold on these 'master minds.' I circulated a questionnaire recently and got 30 answers in Wyoming. The consensus, practically unanimous, was that a managed economy doesn't work out."

These comments do not represent a unanimous opinion by any means, but they are typical of the majority opinion as we hear it from our 2,500,000 readers.

Farmers are self-reliant and proud of it. What they can't do for themselves individually they group together to do cooperatively. They always have. They will quickly resent any government plan which intimates that they are either too dumb or too shiftless to take care of themselves.

This does not mean that they do not want government aid in doing the things that they cannot do for themselves, individually or cooperatively. Most of them would favor federal aid in building needed hospitals where communities are too poor to do it. They believe that needy individuals should have medical care with public assistance when necessary. They would favor aid which government might give in paying for hospital and medical care insurance for those who could not pay their own. Where they draw the line is in having free choice to enter a plan at all, regardless of who pays for it.

"But," you may ask, "will farmers favor even a voluntary plan? Will they cooperate on anything?"

Let's see whether they can cooperate. There are now in the United States 10,450 farmers' cooperatives, enrolling 3,850,000 people and doing a business of \$3,780,000,000 a year. The growth of farmers' cooperatives has been a phenomenon largely of the last thirty years. Few have realized what a giant the cooperative movement has become.

While most of these co-ops have been engaged in selling, a significant number are organized for buying. Here are the figures just for the buying co-ops: 2,742 organizations, 1,270,000 members, and \$600,000,000 worth of goods and services bought.

Will farmers cooperate? They are the most cooperative-minded group in the country. They have had far more experience with cooperation than city people have. If you talk to them about buying medical and hospital care cooperatively, they will know from the beginning what kind of mechanism you are proposing.

Farmers have cooperated in all manner of directions, and could easily do it in one more. They have had mutual irrigation companies; associations for the artificial breeding of dairy cattle; orchard-spray rings; cooperative creameries, elevators and livestock shipping associations; farm loan associations; machinery cooperatives; mutual telephone companies; rural electrification cooperatives; and half a hundred others.

Closest parallel to voluntary health insurance associations is the farmers' mutual fire insurance company. For decades farmers have banded together in local groups for protection from fire. The number of these groups has remained remarkably stable. Between 1914 and 1941 (latest year for which figures are available) the number fluctuated between a low of 1,826 associations in 1933 and a high of 1,947 in 1914.

Farmers have shown that in health insurance itself they are good buyers. The Farm Security Administration found that when its clients were offered a chance to buy into a medical care plan an average of 52 per cent of them did, and in some places as many as 89 per cent did. Blue Cross has more than 500,000 rural members now.

I believe that this half million will prove to have been the hardest to sell. Farmers are not quick buyers of a new thing. Many an agricultural extension worker and farm magazine editor has wondered whether he would ever have patience enough, or

live long enough, to see farmers adopt a new and proved farming practice. Then a few do. Their experience is a demonstration. Eventually, farmers everywhere take it up. The same may very well be true of prepayment health plans, as soon as a few devices make them easier to buy and collect for. Those devices should not be too hard to think up.

I do not mean to suggest that any prepayment plan will not need vigorous selling. On the contrary, it will need sustained, aggressive selling. But if persisted in, one of these days it can yield big results. Of that I am confident.

3. Take farm folks in on the planning, either for health facilities or payment plans. It's just amazing how few of the do-gooders in this world do that common-sense thing. Everybody is present when the plans are laid except the beneficiaries, for whom the whole thing is promoted. Incidentally, I don't see the names of any full-time farmers or farm women on your Commission on Hospital Care.

Farm folks will invariably surprise you. I know that they have surprised me regularly for twenty years and are still doing it. You will be surprised at how well informed, intelligent, progressive, and sound in their judgment they are. That's as true of the women as of the men. They won't know much about hospitals or hospital care, of course, but they will have the most worth-while idea of anybody on what they need, what they want, and how they want to pay for it. They can communicate the plan to the people whom they represent, with less sales resistance than you can.

It seems high time for leaders in all of the health fields, hospitals included, to ally themselves with farmers in mapping, and then pushing forward, a real health program for rural America.

2. In Rural Health the Greatest Need Is Organized Planning, *by Mrs. Jerome Evanson**

THIS is not an attempt to express the views of a farmer as typified by Millet's *Man with the Hoe*, bowed by the weight of centuries, accepting hard toil and whatever calamity befell him, the while he muttered, "Thy will be done." Rather it is representative of the American farm family on the land—the organized farmer who, with shoulders squared to accept his share of responsibility, looking up and beyond his green acres, with a deep conviction prays, "Thy will be done *on earth* as it is in heaven."

He has seen wars, depressions, drought, and epidemics—all needless calamities—destroy or maim his loved ones and his acres. Needless calamities yes, and for his part and for the sake of humanity, he is doing something about it, the while he prays that he may make his contribution toward "Thy kingdom on earth."

There are two classes of people whose interests are in the land—those who live off the land and those who live on the land. The Farmers' Union is composed of several hundred thousand farm families whose goal is not to profit off the land but to establish homes on the land. Their program is geared to the security of farm families and a more desirable living on the land. They are not waiting for a miracle to happen to bring them security and a more equitable share of the good things of life. They are pooling their own resources to provide these things for themselves. Pooling their ideas and meager resources, they have built cooperatives across the width and breadth of our land—producer cooperatives through which they have gained a measurable control of the marketing channels for their raw products.

They have built supply and consumer

cooperatives providing for their daily needs. They have built service cooperatives providing insurance protection for themselves, their families, their homes, and their crops. They pioneered in medical services in building the first cooperative hospital in the United States at Elk City, Okla. In the management of their cooperatives they are as much concerned with the social balance sheet as the financial balance sheet, and so 5 per cent of all net earnings is set aside in an educational fund to bring awareness and understanding through study groups whereby they may intelligently cope with their problems through cooperative and legislative action.

The organized farmer is learning to use the resources of his land wisely. He knows, too, the value of human resources and the need for proper care of these resources if he is to make his contributions. The drought and depression of the hungry '30's confused and discouraged many but aroused a few pioneering souls among those who give as well as those who take health services. Cooperative effort was not new but the prepayment plan of providing health services was new to many, and, since many people would rather fight change than change their minds, there was opposition to this program.

But as the opposing wind makes the kite fly, so opposition focused attention on the crying need for a plan different from the *status quo* of the past if the gains made by medical science were going to be made available to people of all income levels.

There never have been enough doctors in rural areas, and when I speak of rural areas I mean the wide open spaces where

* Adapted from *Hospitals* 18:28-30, Dec. 1944.

people live on farms, in some instances miles apart. For example, in the area I visited this last week end, the community, a county seat, was 75 miles from the nearest hospital—a hospital the people of the community would not use—and they were taking their people to a hospital 185 miles away, the nearest hospital with the exception of the first mentioned, which was definitely out of the picture.

I live in a state where only eight out of 53 counties have an approved hospital, where we have counties that have neither doctor nor public health nurses nor hospital, where we have only three counties of the 53 organized in a health unit to serve the people.

There never have been too many doctors in rural areas and the drought forced a great many of the doctors who were located in these areas to seek a living in the cities, where most of them affiliated with clinics. It wasn't that they chose to leave rural areas, but there were no planned provisions for the rural doctor serving his people, and consequently as a matter of survival he moved to urban areas.

We, the organized farmers, are aware that if we are going to bring doctors into rural areas again we will have to provide: (1) modern facilities to attract them; (2) assurance of income; (3) opportunities for study and research. The problems involved in providing these things may look formidable but there are none that cannot—that have not—been overcome through planned community cooperation.

Our first great need is organized planning to bring the gains of medical science to rural people and make these available to all regardless of income or ability to pay. If certain diseases are preventable then why are we not preventing them more effectively in rural areas? If the education of the child is the responsibility of the gov-

ernment then surely the health of the child should be a government responsibility. Public health services must be expanded and made available to all.

Under public health services we should have: (1) an adequate maternal and child health program; (2) rural sanitation; (3) health clinics; (4) mobile units for immunization and tuberculosis tests; (5) public health nurses who have had special training in public health service and who will be interested in going farther than handing slips to parents each year as to needed corrections or care of their children—who will be interested in seeing that corrections are made; (6) a nutrition program to provide information on proper foods, to correct faulty food habits due sometimes to lack of knowledge but too often to indifference on the part of parents.

A most necessary step in organized planning is in providing adequate hospital facilities to serve all the people of the designated area—provisions to enlarge and improve existing hospitals and build new ones where they are needed. This will call for county, statewide, and national planning to make possible a proper distribution of hospitals. There must be provisions not only for building but also for maintaining these facilities—in other words, a large enough area to provide assurance of an income for its upkeep.

We need rural health centers in outlying trade areas with ambulance service to bring hospital cases to centrally located hospitals. We favor one centrally located modern hospital rather than small community hospitals because of the many problems not only in providing adequate facilities in small hospitals but also in the matter of hospital discipline, so important to the welfare of the patients.

And yet until we have developed a plan of trade area health centers and a centrally

located modern hospital, these small hospitals are filling a definite need. I would like to ask you what you intend to do about many of these hospitals—about 3,300 of them, I believe—in the United States which are so small as to be beyond the pale of approval of the American College of Surgeons and the American Hospital Association, and are consequently completely ignored, with no protection for the rural people who must use them.

Discussing the problem of small private hospitals, a doctor told us of her early experiences in attending the sick in small farm homes. Some lived in sod huts with no floors, with one room for the entire family—not a clean cloth in the house—and how she prevailed on dependable individuals in small towns in her area to provide a few beds in their homes so the doctor might have a place to bring patients that would assure some sanitary conditions and a semblance of privacy and rest. These hospitals are still filling a definite need, but the people would like some sort of supervision and inspection for their protection.

We feel that hospitals, public health services, and physicians' offices—yes, and dental offices—should be brought together under one roof, serving the people as a health center with modern diagnostic facilities, so necessary yet prohibitive in price for private doctors or small hospitals to install.

Perhaps No. 1 on our list of problems in providing these health facilities is the problem of finances in building and maintaining modern facilities in sparsely settled areas. Postwar plans for public works can and must provide for the building of needed health centers. Since incomes in certain areas are too small to budget for medical care, some form of equalization or subsidy must be provided. We cannot allow our boys and girls to grow up with

weak bodies because their parents cannot afford doctor, dentist, and hospital care. They must be insured against poor teeth, poor eyes, and all complications that come from inadequate health services.

These plans for health centers in rural areas are not fantastic plans of dreamers. They are proved projects in many areas. The Farmers Union Co-operative Hospital at Elk City, Okla., the Sand Hills Co-operative Health Association in Nebraska, the Taos County Co-operative Health Association of New Mexico, all carry a prepayment plan along with a pattern of medical and related practices suitable to rural areas. The Manitoba plan of municipal hospitals and doctors is being closely studied by our rural groups in their desire to explore all avenues for supplying adequate health needs for all people.

In some areas where medical services are available but prohibitive to most income groups of the area, cooperative and other types of nonprofit clinics are being organized, using available hospital facilities. To date, voluntary insurance plans—with all due credit to the fine pioneering work of the American Hospital Association in developing the Blue Cross Plan—have been too costly for the great majority of farm families, and the services offered by them are entirely inadequate since at the very outside they will not meet more than one-third the cost of illnesses.

The success of a health program to fill the needs of rural people is definitely dependent upon a vital educational program. In the past it has been difficult to sell health services to rural people. Too many have assumed that country life and good health are synonymous. Surveys showing that rejections for service in the armed forces were higher among rural people than any other group, and that the death rate in rural areas is higher in all age

groups than in urban areas, have shocked rural people out of their complacency. We must change our attitude in thinking of a hospital as a place one goes to as a last resort—a place where one goes to die. We must learn to look upon a hospital as a health center and on the doctor as the man who is hired to keep us well, instead of the person to go to only after all home remedies and patent medicines have failed.

Our rural people must also learn that epidemics of measles, smallpox, whooping cough, or scarlet fever are not necessary evils that all children must endure, but that they are preventable and that serious complications can develop from these recurrent epidemics. A vital educational program will make people health conscious and

play a definite part in developing community participation in supplying community health needs.

Lastly, the great need is to find common ground on which community groups—rural, business, and professional—can co-operate and pool their resources in providing adequate health, medical, dental, and recreational facilities for their community for, as John Dewey has aptly stated, "What the wisest and best parent wants for his own child, that must the community want for all its children."

We are encouraged to know that a Commission on Hospital Care has been set up. We look to it for advice and counselling and we in turn assure it of our full co-operation.

3. Lest We Forget: The Rural Medically Indigent, *by Kenneth E. Pohlmann**

IT HAS been recognized for many years that the problem of the medically indigent is properly the concern of government. The American Hospital Association and other professional groups are already committed to a policy which clearly supports measures designed to provide hospital and related medical services to indigent groups at the expense of the taxpayer.

The expansion of outpatient clinics as a service of large urban hospitals, combined with the rapid development of public health activities especially in our larger cities, has brought about a condition in which urban dwellers, particularly in those income brackets below \$1,500 a year, can, through relatively simple "means tests," secure medical and hospital attention including preventive, diagnostic, and curative services at little or no expense to themselves. No comparable program of indigent care exists generally for rural dwellers nor are the hospital and other services available to furnish such care.

Beginnings have been made in a number of states to provide hospital services to medically indigent residents, either urban or rural, through arrangements with existing general hospitals or through state institutions. The states of Louisiana and Mississippi have for several years provided hospital care for indigent state residents through charity hospitals or hospital funds. As a general rule, however, those states which are predominantly rural have, for the most part, been very slow to develop hospital and related health services to provide for the medically indigent rural dweller.

Numerous proposals have been developed recently in various states for the extension of a hospital program for indigent groups through the establishment of state hospitals located in strategic centers, or through other means. Several interesting proposals have already been made for this

* Adapted from *Hospitals* 18:30-35, Dec. 1944.

type of program by planning groups in North and South Carolina, Maryland, and Virginia.

When the Farm Security Administration was called upon in 1936 to deal with the pressing problems of low-income farm families in distressed agricultural areas, it was found that for all practical purposes health services for indigent rural groups were largely nonexistent. The prepayment plans developed by the FSA grew out of the need for some program to meet this problem.

In many respects the FSA health program took the burden for medical indigency out of the hands of local communities or, as was more likely the case, these emergency prepayment health plans undertook to handle a health problem which the local communities were not prepared or in position to administer.

Before discussing the FSA experience with hospital care, however, I think it would be well to examine first the hospital situation as it affects rural people. There are no registered hospitals in more than 1,300 counties in the United States, and practically all these counties are located in rural areas. Not only are most hospital facilities concentrated in urban areas but there is a wide disparity between regions.

For example, recently there were about the same number of people in the Northeast as in the South, but there are 157,000 hospital beds in the Northeast and only 67,000 in the South, or less than half as many. Even before the war—in 1938—the Technical Committee on Medical Care of the Inter-Departmental Committee on Health and Welfare estimated that 500 hospitals with thirty to sixty beds were needed in rural areas. The situation has become much worse as the war has progressed, and there are many rural areas of the United States in which already inadequate hos-

pital facilities have been reduced or closed because of doctor shortages.

Farm families get less hospital care even in normal times. The admission rates in large cities are about 60 per cent higher than for rural areas and more than twice as many disabling illnesses are hospitalized among urban residents as among rural families. Hospitalization experience is far lower in rural areas, whether measured by the number of cases per 1,000 population per year or by the total number of hospital days per 1,000 population per year.

Thus, in cities of 100,000 or more, studies have shown that there are 67.5 hospital cases per 1,000 population per year in comparison with 42.0 in rural areas. In cities of 100,000 or more, there are 858 days spent in the hospital per 1,000 per year in comparison with 505 in rural areas.

Whatever index is used, the rural health experience for hospital care, as well as for physicians' services and for surgery and specialist care, tends to be lower. This is borne out not only by comparison of the total rural and urban population, but also by comparison of the same income groups, which shows the rural experience is lower.

The primary explanation of the poor level of medical and related personnel and facilities available in rural areas is the problem of low per capita income. From this basic fact springs a whole series of consequences which result in inadequate service for rural people. U. S. Public Health Service and other studies show that the relationship between the settlement of physicians and per capita purchasing power is a striking and direct one.

Not only do physicians tend to settle in the cities where both per capita income and total income are higher, but when they settle in rural areas they tend to settle in the more prosperous districts. This is only natural and the physician should not be

blamed for responding, as does the average citizen, to economic attractions.

It is often pointed out that physicians do not settle in rural areas mainly because of the lack of hospital and diagnostic or laboratory facilities which are required for good medical practice. This is partly true, but it must be realized that the very lack of hospitals and auxiliary equipment is due in no small measure to rural poverty and lack of purchasing power. The construction of a hospital or a public clinic requires community wealth, either from local philanthropy, voluntary contributions, or local tax funds. Where local wealth is small funds for voluntary contributions or tax contributions are minimal.

Furthermore, the very maintenance of a public institution requires constant purchasing power from its users. Even those rural hospitals that are available suffer from low occupancy simply because rural people cannot in ordinary times afford the "luxury" of hospital care. Because of the leanness of county government treasuries, few beds are available for the care of the indigent so that, in contrast to the advantages of the city hospital, nearly all rural patients desiring hospital services must pay for them.

It is true that the low occupancy of rural hospitals and the low usage of such rural medical services as are available are, to some degree, due to psychological attitudes among many farm people. The hospital is still too widely regarded as "a place to die in" and the physician is too widely thought of as "someone to avoid," except in case of critical emergency. The farmer tends to be stoical about his health and considers the avoidance of physicians an attribute of rugged individualism.

If these attitudes are thoroughly analyzed they are found to spring from an adjustment to customary lacks. They are de-

fense mechanisms that have naturally developed in the face of inadequate resources which, in turn, spring from the economic and geographic difficulties prevailing.

A further critical aspect of the economics of medical and hospital care for farm families, as well as for urban families, is the unevenness with which the burden of illness strikes. In any one year, it has been found that 10 per cent of all families pay 41 per cent of the total medical charges, while 58 per cent of the families pay only 18 per cent of the charges.

While the *average* medical cost for a group of 1,000 families might not be excessively high, for the unfortunate 10 or 20 per cent with the greatest medical needs the costs amount to financial catastrophe—and it is the lowest income groups which generally have to spend a higher percentage of their total income to meet medical costs.

Rural poverty with its consequent lack of purchasing power is further aggravated with respect to medical service by the unevenness with which costs are distributed and the proportionately greater impact with which they fall on low-income families.

Studies made by Collins as well as those made by Pennell, Mountin, and Pearson indicate that, despite the fact that illness is more commonly an adjunct of poverty than of wealth, it is in the poorest states that the fewest patient days per unit of population are reported for general and special hospitals. Few facilities, limited amounts of hospitalization, and low occupancy are coexistent in areas with meager per capita incomes.

It is important to keep in mind in this discussion that the average net family income for all FSA borrower families in 1939, after farm expenses have been deducted, was only \$540 a year. By 1943 the

average net family income for all FSA borrowers, in terms of 1939 dollars based on prices paid and prices received, was only \$500—and these figures include the value of food and fuel obtained on the farm.

If it is realized that within that group are thousands of families with net family incomes of \$250 and less and that these latter income groups make up a large proportion of our case load in many rural states and represent only a part of the large group who need our help, some idea of the magnitude of the problem can be gained.

With these facts in mind, let us now consider the FSA health program. Certain basic principles have been operative from the beginning in the Farm Security Administration medical care program. In the absence of a program for medically indigent farm families in most rural states, we were faced from the very beginning with the necessity for pioneering in the provision of medical care for our borrowers.

Our general policy was to develop medical service plans under a basic working agreement with the state medical associations. We then approached county and district medical societies with our problems. The plans which were developed provided for medical society supervision over all medical aspects of the program and, as a usual rule, the enrolled borrowers had free choice of physicians among those participating, usually from among all qualified physicians in the area. Family participation dues are paid in advance on an annual basis and the borrowers are often assisted in making such payments, ordinarily through loans. The funds prepaid by each family are placed in a pooled or common fund in the hands of a bonded treasurer or trustee. Monthly payments from this fund are made to physicians and hospitals and for other services, on the basis of services rendered. The family contribu-

tions to most of these plans are based upon the average incomes of the FSA borrower families in a given area, and the rates for a particular plan depend on the services covered and quite often upon the size of the family.

The services offered under these plans vary according to (1) the need, (2) ability of the group to pay, (3) available facilities, and (4) services available to FSA borrower families through existing organizations and other factors. According to our latest data, physicians' services are offered to 93 per cent of the members in group health plans.

These services cover the usual care that is available from the family doctor, including examination, diagnosis and treatment in both home and office, and obstetrical care. (In some cases there is an extra fee, payable prior to delivery, in obstetrical cases.)

Emergency surgery is available to approximately 60 per cent of the participating families, and some plans include the surgical correction of chronic defects. Limited prescribed drugs are available to about 40 per cent of all participating families, and limited dental care is available to about 42 per cent of such families.

Hospitalization through FSA prepayment plans was available as of March 31, 1944, to about 67 per cent of the participants, or approximately 58,172 families including 292,644 persons. There are plans in 742 counties of 20 states and Puerto Rico, involving either hospitalization alone or more often hospitalization in conjunction with other health services.

In negotiating agreements with local hospitals on behalf of FSA borrowers, who in most cases are paying as much as they can afford to on the basis of their family incomes, the contracting hospitals have generally excluded tonsillectomies and obstetrical care from coverage. It is for just

these elective conditions, however, that rural people show the poorest record in comparison with urban. Since most of the hospital agreements for FSA borrowers do not provide for the treatment of previously existing conditions, it may be seen that, despite the fact that these families are paying all they reasonably can afford, they are by no means securing complete coverage.

The treatment for acute illnesses has necessarily been stressed in most medical plans because of the limited amount of family contributions available. The average membership fees have usually ranged from \$15 to \$20 per family in extremely low-income rural areas to as much as \$50 or more where incomes are higher. Some slight adjustments upward in fees on the basis of improved farm income have been made during the past few years.

The prepayment fees for hospitalization are necessarily low, tending to range from \$5 per family per year in particularly low-income areas up to \$12 or \$15. Naturally such low rates allow for hospitalization only of emergency conditions. On this basis it is no surprise that the incidence of hospitalization in our plans has been only about 200 days per thousand people per year, with wide variation in different areas.

Parenthetically, however, these represent hospitalization rates only for cases on which we have records and it may be possible that the coverage of emergency conditions in the prepayment plans has enabled some families to enjoy the relative luxury of hospitalization for elective conditions, which would not be reflected in this incidence. In a few special experimental program counties, in fact, where membership is not limited to low-income families or to emergency conditions, hospitalization rates have ranged from 266 to 727 days per 1,000 persons per year, with an average incidence of 425 days.

Participation in all plans is on a voluntary basis and at no time has there been anywhere near 100 per cent enrollment in them. In some regions of the country the enrollment has been as high as 87 per cent of the eligible families, but the national average has never been above 56 per cent, and now, despite improved incomes, it has dropped to about 52 per cent.

One of the reasons why enrollments have recently dropped is the fact that in many rural areas many farm families, even after enrolling in a program, cannot be assured of securing services because of the shortage of physicians or facilities, and after one or two experiences of this kind many farm families are discouraged from reenrolling.

Again, in some areas farm families have been discouraged by their family physician from participating in the program. The argument has been used by some physicians that there no longer exists a need for this type of program because of generally improved farm incomes—this despite the fact that low-income groups in agriculture are generally the last to feel the effects of general rises in farm income.

It has been found that hospitalization plans provide an effective means for maintaining health associations for prepayment services in the face of some of the wartime pressures mentioned above. Thus, because of the less direct dependence of hospitalization plans on the supply of physicians, their survival value has been greater than that for physicians' care plans or dental care plans. In some areas, while total membership in prepayment plans has declined, hospitalization coverage has actually increased.

Hospitalization, furthermore, has offered the opportunity for amalgamating the typical FSA county plans on a district or even a statewide basis, thereby provid-

ing much greater actuarial stability. While it is difficult often for county medical associations to pool their interests on a multi-county or statewide basis, this has fortunately not been the case with hospitals.

In several states, including North Carolina, Oklahoma, New York, and Oregon, contracts for hospitalization have been worked out with Blue Cross associations. We have felt a mutual benefit from this relationship in that, on the one hand the convenience of established contracts with hospitals was provided by the Blue Cross associations while on the other hand the enrollment of our borrowers provided a convenient method of acquisition of Blue Cross membership in the rural areas.

In a sense the relationships between the FSA prepayment plans and Blue Cross prepayment plans represent a form of subcontracting which would not necessarily be efficient from the point of view of our borrowers. On the other hand it has generally been possible to arrange for lower than the usual rates for Blue Cross membership to be applied to FSA borrowers, in proper recognition of the lower usage of hospitals by rural people.

The economic and psychological factors responsible for this lower usage cannot be removed overnight. Until the effective demand for hospitalization by rural people is brought up to the level of that for urban people we feel it is proper to expect them to pay proportionately lower membership fees in prepayment hospitalization plans.

As we look to the postwar period, particularly in rural areas, the FSA experience reveals many inadequacies which must be met by those charged with the responsibility for furnishing health care to rural people.

FSA hospital care plans, based as they are on the ability of low-income farm families to pay, have had little or nothing to of-

fer contracting hospitals to get them to increase their benefits. The fact that these plans are limited to FSA borrowers alone automatically raises many misgivings in the minds of already harassed rural hospital administrators who see a potentially adverse selection of risks in such groups.

Despite the close working relationship between FSA county personnel and the individual FSA borrower, only slightly more than 50 per cent of the eligible families have voluntarily enrolled in these plans. The acquisition costs for such enrollment have been absorbed in the numerous other activities which go to make up the expenses of an FSA county office. But, if they were separated and charged to a voluntary plan it is quite likely that such costs would be prohibitive.

Hospitalization in itself, we should remember, accounts for only a small portion of the total expenses for health services—a portion which, when it reaches \$10 or \$12 for a family with a net cash income of \$200, begins to loom pretty large.

Immediate postwar planning activities by hospital groups in terms of both payment for hospital services and improvement of facilities must take into account the reasons underlying rural deficiencies in health personnel, facilities, and services. Foremost is the economic factor. Rural areas lack the corporate and individual wealth which provides ample tax funds, generous endowments, and full payment of fees and charges.

One of the first problems which must be solved in rural areas is that of bringing existing rural hospitals up to the standards set by the American Hospital Association and the American Medical Association.

The postwar construction of additional rural hospitals and health centers is no longer a "pipe dream." Somehow, we have got to evolve a plan for bringing medical

care, including adequate hospitalization, to rural people through intelligent organization and coordination of facts, funds, and faith in each other to the end that rural people enjoy parity with urban groups with respect to health services.

This is neither a rural problem nor a rural phase of an urban problem. It is a national problem deserving a place in national planning. The American Hospital Association is now undertaking a survey of hospital facilities and needs which before it is completed will undoubtedly bear out this statement.

Directly related to the problem is a recently completed study made by the American Public Health Association indicating the need for more effectively planned units of local health administration. The recent forthright statement by the subcommittee on medical care of the Committee on Administrative Practices of the APHA will excite controversy and discussion in many circles but the opponents of that statement will have to admit the validity of much that is said.

Those of us who have been intimately concerned with the health problems of low-income farm families over the last eight or nine years have had to develop the type of health plans we did because, under the pressure to do a job for needy people without delay, compromises were necessary. The Farm Security Administration prepayment plans have been of great benefit to the many thousands of borrowers who have received hospital and related care under them. But hospital administrators know full well that the job we are doing is incomplete and of a fragmentary nature and has only been concerned with a relatively small segment of the population who, had they been urban dwellers, would probably have received far more adequate care and at no cost to themselves.

Rural America is on the march. The demands of rural people, which formerly expressed themselves in support of farm-to-market roads and parity prices, have been widened in scope to include a living standard for rural families on a par with that of town and city folk. National farm leaders, and the farm organizations they represent, are finding among their members an expressed desire for better rural schools, improved rural housing, rural electrification, and expansion of social security. These organizations and their leaders are seeking ways to meet those demands made upon them by their members.

Rural people want more hospitals and health centers though they are not always sure as to what they must do to get them. They are asking for due consideration to the needs of rural areas in the distribution of surplus medical and dental equipment now held for war purposes. They want an expanded program of public health through the establishment of more district and county health units. They also want more adequate distribution of medical and dental personnel as between rural and urban areas.

Postwar planning reports on health and sanitation from agricultural postwar planning committees in over forty states, which represented the thinking of farm men and women, land grant college leaders, and others, showed more than an ordinary acquaintance with the problems of rural health. A summary of these reports, prepared after careful study of their contents, ends up with this statement.

One conclusion is overwhelmingly clear; that the articulate sections of the rural population responsible for these reports are deeply concerned that positive action be taken in the postwar period to improve rural health services. These services are regarded as a right, rather than as a luxury

dependent on individual purchasing power. Planning is regarded as urgently necessary and the cooperation of all levels of government and voluntary groups is looked to for getting the job done. No report appeared to indicate that there was plenty of time to wait.

One useful lesson of the FSA program gained by rural leaders is the pointing up of many of the problems of medical and hospital care in rural areas. The health program has centered the attention of rural people upon the technique of prepayment as a method for securing health services; it has dramatized the insurance principle as a device for lessening the financial burden of health services by spreading the individual risk over a whole group, and, more important, thousands of non-FSA farm families have seen the benefits to be derived from this technique.

Time and again we have heard rural leaders say that the only trouble with the Farm Security health program is that "it does not go far enough." Explaining their statement further they go on to say "that what every rural community needs is some plan like the FSA plan, either voluntary or compulsory, or a combination of both, to which all rural people can belong and which will pay for the maintenance of a good rural hospital staffed by competent physicians and specialists."

They feel that the construction of a good hospital or other health facilities is a responsibility to be borne mainly by the community, with aid from the county or the state or the Federal Government, with prospects of its cost being paid off on a long-term basis. Such a program would get a hearing with the farm people who, while not familiar with the terminology of health administrators, hospital managers and health personnel, nevertheless want medical care and related services on a parity with those of urban centers without being told that such a program is "socialized medicine."

Rural people were a long time getting good farm-to-market roads. The benefits of rural electrification were quickly recognized by American farmers. Better rural schools have been on the agenda of every important farm discussion group, and we are beginning to see the results of their efforts for better rural education in both state and federal legislation.

The improvement of rural health services and facilities is the next order of business for the American farmer. It is my fervent wish, as well as yours, I am sure, that those concerned with the vital issue of planning and developing these essential services and facilities make certain that access to them is assured to every rural citizen on the basis not of ability to pay but of medical need.

4. In Postwar Days Rural Health Will Pose a Challenge, *by Harold F. Stock**

IN THE year 1900, Hillsdale, Mich., had a hospital of two rooms; it was out at the mill pond. In 1907 a doctor and his wife had opened a five-room affair. In 1915 the Midgleys came along with eight beds and an operating room. The year 1921 brought in our "old hospital"; it grew to twenty-five beds and fairly adequate facilities and

lasted until 1940, which marks the beginning of this little story.

The population of Hillsdale County was about the same in 1900 as today—so this account may be typical in showing the advance of rural hospitalization since the turn of the century.

* Adapted from *Hospitals* 18:35-38, Dec. 1944.

The Hillsdale Community Health Center is a \$300,000 hospital, new in 1939, located on eight acres of beautiful lawns, with trees and shrubbery. It has sixty-five beds, laundry, kitchens, laboratories, solariums, and operating rooms, that, I dare say, compare with the best. It serves a county with a population of 28,000. Jackson, Mich., is thirty miles away, Toledo, seventy, Detroit, one hundred. Made possible with assistance from the W. K. Kellogg Foundation and the PWA, the Health Center is a corporation controlled by the City of Hillsdale. Its nine trustees are appointed for three-year terms by the mayor and approved by the council. The hospital has no debt, is very adequately staffed, and when I left town had fifty patients.

Returning from a trip in the fall of 1938, I was startled to learn that I had been named a member of the hospital board. A flour miller by occupation, I knew zero about hospitals; to me they were necessary and, I supposed, nice places—to be avoided.

Despite the fact that I didn't know an inpatient from an outpatient, I was shortly made president of the board—because nobody else would have the job! Later I was to learn that the citizens had come to the mayor in panic over how little Hillsdale (7,000 souls) was doing to keep up this beautiful but gargantuan institution when the city was already experiencing an annual \$6,000 to \$10,000 deficit to keep afloat our old and modest little affair of a hospital.

The name Hillsdale Community Health Center covers a lot of territory, and possibly originated in respect to the hopes for it harbored by the Kellogg Foundation. Actually, we are just a small town hospital. But as my experience with the hospital broadens, it is not hard to see where the name can be fully justified by foresighted planning for the future. Interesting and

solid objectives to be accomplished in post-war days come easily to mind:

1. Place our facilities wholeheartedly at the disposal of the Hillsdale County Health Department. This department should, in fact, live with us.
2. Make visiting nurse service available to every home in the county. (Small fee if possible—otherwise gratis.)
3. Cooperate with home maternity instruction and nursing, which was two years ago a most important contribution; now by-passed, but to be resurrected if needed. (Unimportant now because widespread hospital prepayment plans and high wages send prospective mothers to the hospital.)
4. Extend diagnostic services at very low rates, and make an x-ray or laboratory report available to all comers. Subsidized by the foundation for the last few years, we offered lab and x-ray work at extremely low rates. It is of interest to know that such work has recently trebled and not since our new hospital opened have we had to call on our sponsors for the financial subsidy offered.
5. Our future should contemplate low patient rates and high wages for our staff—and it can be done, at least in our community. A fairly run hospital must pay its own way, wages and all.
6. A woman's auxiliary is an easy and valuable organization to set up, and, given good leadership, will contribute substantially to the hospital in various interesting ways.
7. We have no provision for accepting charity patients—indigent cases are usually cared for by the county, the state, or, shall we admit, left to liquidate themselves. But is it not the responsibility of a going hospital to accept some part, at least, of the charity case load? I feel it is.

I would raise a fund from people willing

to contribute to hospitals and I would place it at the disposal of a secret committee that would study carefully all cases where charity is indicated. With the committee's approval let's accept these cases to the extent consistent with our special fund—and say nothing about this service, just give it! I have no doubt that in our community we could readily care for all the real charity cases that ordinarily would exist. In recent years our books show practically no "lost accounts"; well, let's have a few to be cared for as suggested.

8. Doctors' clinics to house all the town's medical men should be constructed on our ample grounds. Similar quarters for the County Health Department should be right alongside.

9. Our laboratory facilities should be enlarged to care for food analysis requirements of city and county officials, including the regular milk and water determinations. Venereal disease cure should have complete attention here also.

10. A suitable portion of our hospital should be made available for the patients of osteopaths—a separate unit if you must.

11. A dental clinic at the health center would come into general public use, possibly with free service for school children—preventive dentistry, and, of course, painless.

12. Hospital and medical service plans, to be promoted as the logical answer to the anarchistic cry for socialized medicine. Let's socialize our own medicine! In 1940, hospital service insurance was practically nonexistent; today 10,440 of the county's 28,000 people are protected.

Of especial interest is our current work to place this plan among the farmers and other unorganized classes of the rank and file, i.e. where payroll deduction is impossible.

Working with the Kellogg Foundation

and the University of Michigan School of Public Health, Michigan Hospital Service has selected Hillsdale County and adjoining Branch County as guinea pig areas for an aggressive attempt to enroll the rural population. Success appears possible. Already 1,620 individuals have been covered in Hillsdale County on strictly nonpayroll deductions, 8,820 on payroll deductions. About 40 per cent of the county's population is thus protected.

And now a few words about the "Wild Animals I Have Known"—in other words, knotty problems experienced. A few just at random:

Personnel. Your first necessity in running your hospital is to staff it. *Pay good wages;* you have to and you might as well come to the milk and like it. We throw in a bonus; all employees ring the bell on this one when they show six months' steady service. Another thought re bonus: It will be easier to simply drop the bonus business than to reduce salaries should conditions necessitate. For my part I hope to see the present salary basis maintained after the war, irrespective of conditions.

We have a struggle but remain well staffed. We have no school of nursing, but we have cadet nurses from Butterworth Hospital, Grand Rapids, who spend three of their last six months of training before graduation with us. As their work represents the end of three years' training, you can see we are getting real nursing. We have vigorously promoted nurses' aide classes, and as a result have benefited nicely, and in times of need.

Further, in keeping the staff happy, we like to keep in close contact with all and really take an interest in their side of it. The union idea is presented every now and then—I think very lately the California scheme has been studied by our group. Personally, I have no objection to a nurses' or

staff union, but we do want our people to feel that their board has their interest at heart and will do voluntarily more for them than we would if—to come out with it—held up at the point of a strike. We caused to be appointed to our board a member of the present nursing staff, and she is a great addition. Trained at our hospital, she is simply a practical nurse, level-headed and energetic, inspiring confidence in her associates and doing a fine liaison job between staff and board.

Osteopaths. Hillsdale has an unusually good osteopath. He serves many patients, and well. He wished especially to use the hospital for obstetrics. Our community is all union—CIO, AFL, Amalgamated Clothiers, all are there. One day a union committee visited our administrator, demanding that the osteopath be granted privilege of using the hospital for his cases, threatening to bring in a petition with this demand signed by 2,000. These union men and their families are all subscribers to Michigan Hospital Service—so what to do? The way out came with unexpected ease. Their committee was asked to the hospital for dinner and a cordial reception, where they were shown all departments.

Their questions were frankly answered, and it was pointed out that we are one of the few hospitals in our class approved by the American College of Surgeons; that to lose this approval would cost us \$6,000 a year in income, and that we would lose this approval if we opened our doors for osteopathic practice. When we had explained as carefully as we could that the question was one of long standing between the medical profession and the osteopaths, that the hospital was strictly in the middle and the medics had the say, the demand was dropped.

We asked the mayor to appoint a member to our board from the unions, a man

whom they might nominate. They picked their man from the CIO, the mayor appointed him, and we have him. He represents all Hillsdale unions on our board and he too is a very definite addition. The unions are happy and we are happy, and it is good the osteopath incident came up for air.

Communicable Diseases. Now, here's one that got us in trouble. The question: accepting contagious cases. We have two nice rooms especially designed for this purpose; first floor, outside entrances. We have never used these rooms for contagious cases because we do not staff the first floor and it has been far cheaper for the patient to go elsewhere.

We have had only four or five really contagious cases to deal with each year. We have sent them to Jackson County Isolation Hospital, thirty miles away, or to University Hospital, at Ann Arbor, seventy miles out. This appears the sensible thing to do. A small hospital is not set up to care properly for a seriously contagious case.

But suppose this happened to you as it did to us. A case is presented—sick all right but without diagnosis. In two days, the physician in charge announces streptococcal meningitis. Our administrator arranged admittance for the case at Jackson Isolation Hospital, but the mother decided to have her son brought home instead. The case was discharged home on advice of our medical staff.

Here the fire started. For sending the case home we were publicized in many state papers, very unfavorably. The father gave public and loud notice on all occasions that he would sue the hospital and all connected; we were in Dutch.

It became necessary to publish a lengthy explanation of just exactly what had happened, a statement which the board, at least, felt entirely cleared the hospital. It was a

most disagreeable period and perhaps prejudiced some people against the hospital. Fortunately, the boy fully recovered so the lawsuit angle dropped.

Care for contagious cases requires technical training, possibly beyond the reach of a country hospital infrequently confronted with the problem. The risk to the entire hospital staff and other patients is not to be lightly considered or taken. After our experience, we sought advice from five outside and top sources to determine a future policy. They told us: "Continue your present policy; do not accept contagious cases, but accept responsibility for immediate admittance to outside hospital units intended for their expert care. Where a case is presented and accepted, and later diagnosed as contagious, remove the patient if it can be done without danger." "If you are advised that risk would attend a removal, then you are stuck and must battle it out as best you can. Each of the few cases of this sort you get should have the most personal and exhaustive attention your administrator can give. In other words a thorough selling job on your handling should be done to avoid disastrous flare-ups."

Just to extend my neck a bit, I would like to prophesy that after the war, however, our hospital will prepare itself to accept contagious cases without argument.

Anesthesia. A board may be quite easily overridden by a strong medical staff. For instance, for some years it had been the practice of our medical staff to permit only a member of the local medical staff to administer anesthetics.

We tried to install thoroughly qualified and registered persons as anesthetists, for which service the hospital proposed to make a reasonable charge. We considered giving anesthetics the proper service a hospital should offer. We had enough business to justify employment of a proper person and

we considered this source of income properly ours.

Our arrangement, by the way, saved money for the patient. But as it worked out, life would become so miserable for the new anesthetist in so short a time that we were in constant trouble. One quit after another—just exiled, we might say. Feeling sure of our position, we finally had it out with our medical staff. A few quite bitter exchanges were necessary, but for the last three or four years the hospital has provided this service to the satisfaction of all. If you are obviously right, your board can stand up and prevail, I do believe.

Food Service. Now to mention my pet grievance—food in the hospital, whether large or small. When a patient goes into a hospital he is sick, nervous, possibly afraid, irritable, exhausted—everything but normal. I say that this patient deserves the best food, served in the most appetizing way. Even then, he may throw it back at you and tell you to "eat it yourself."

I think a delicate, well-served, hot meal, appetizingly arranged and consisting of just real good food, whether a prescribed diet or not, should be a vital factor in your patient's recovery. But what does the poor man get in our hospitals? An assortment of run-of-the-mine stuff, thrown together and openly arrived at; possibly cold, and with mashed potatoes in constant abundance. "Oh, not in our hospital," you are thinking. "Why, Mrs. Brown told me only yesterday how fine our meals were." All right, as other patients would say, "Just spend a week there yourself."

Our own beautiful little plant, with as completely equipped kitchens as can be devised, is no exception. The problem is a problem—let no one think otherwise. Money alone will not solve it. Repeatedly have we insisted that our people plan their menus, buy their food, and serve just the

best they can and then add up the cost—forgetting the cost to start with.

Result: in 1941 our average meal cost was 17 cents; in 1944, 36 cents; and while our meals are fair, they are far from my idea as to what a No. 1 hospital should serve to its patients. A serving to a sick man should be a lure, a really gorgeous bait, most attractively designed to get him to take it and like it. He should look forward to his meals and not dread them.

Finances. Here is where I part company with my critic who says a hospital is, to some extent, a charitable institution and should not be expected to operate without a subsidy from somewhere. He says if you keep afloat on your own bottom you are of necessity doing one or all of three things: (a) you are overcharging your patients; (b) you are underpaying your staff; (c) you are delinquent on services you are duty-bound to offer.

I do not agree. The uncompromising idea of our board is to offer a balanced condition at the close of each year. That we have done so and, in fact, have built up a "future" fund of some \$25,000 during the five years' existence of our new hospital, however, has brought us certain criticism. To answer my critic specifically:

(a) Our rates have been increased twice. At the outset a ward room cost a patient \$3.50 a day; in 1944, \$4.50. Is this charge excessive? Why, you couldn't go to a second-class hotel now and live as cheaply or anywhere nearly as well. Our patient charges are as low as and often much lower than any hospital I know of, and we check frequently.

(b) We are paying our staff wages as high or higher than those paid in comparable institutions—in fact, our pay compares favorably with some famous hospitals with which I am familiar. Our staff is en-

couraged to speak out any time members feel a grievance—financial or otherwise—coming on. So far as I know, they are satisfied and appreciative of the attitude we continually try to show them.

(c) We have been able to maintain a liberal staff—each nurse having, on the average, only from four to six patients to care for. Compare this with large hospitals or many in our own group where today a nurse frequently has twelve to sixteen as her responsibility. Maids, orderlies, x-ray, laboratory, pathologist, roentgenologist—we feel all are deserving of first-team rating. We ask for and welcome constructive criticism for improvement.

But my critic may be entitled to further explanation of our financial progress. It may be that our record should be qualified as a "war record." That is, money flows freely; most everybody who is trying has his share and can now pay hospital bills; hospital service plans have come forward, at least in our country, by leaps and bounds.

When pinch times come we will face another story. Be that as it may, our policy will remain to keep afloat just the same. To make this story clear, I should add that the \$25,000 we have saved up has come chiefly from annual grants the city has continued to make to us and from the fact that we have not charged off depreciation. Our actual story is that receipts from patients since the hospital opened in February 1940 are \$526,480; total expense in the same period (to September 1944), \$522,962. Surplus—\$3,518. What's wrong with at least breaking even?

The keynote for the success of your hospital or ours is *quid non pro*—without which none. And your administrator accounts for 95 per cent of your success. He appoints supervisors, approves nurses, heads up the housekeeping, is responsible

for food trays, mans labs and x-ray, runs the laundry, oversees orderlies and plant engineers, keeps up the grounds, selects anesthesiologist, record librarian, and office personnel—it is his character that pervades every department.

He submits full and truthful monthly reports, exact, in detail and with proper comparisons. It is his influence and work that send a patient out saying either "This

sure is a swell place," or, "Hooray! I'm clear of that dump."

But have you really tried the acid test? Is your hospital the real unadulterated success you hope it is? Then it's your administrator who deserves credit. He lives with it, his body and soul are in it, he establishes its character and its standing in your community. Of such an administrator we may truly say "*quid non pro.*"

5. Selection of Hospitals in Small Urban Areas, by Joseph W. Mountin, M.D., and Elliott H. Pennell*

ESPECIALLY in recent years there has been much discussion pro and con regarding the value of local hospitals for small communities. Proponents of small community hospitals base their arguments on a presumed increase in the amount of hospital care which results therefrom, especially for persons with limited means, and the value that these institutions are alleged to have in attracting physicians to such communities. Those who favor concentration of medical facilities in large centers of population contend that this scheme results in medical care which is of much higher order than that provided by local institutions. They further contend that the wealthier and better-informed persons tend to by-pass their local facilities while the less fortunate must be satisfied with such care as is afforded by their community.

Through a recent study¹ of the illness experience of a large sample of the population of this country, the United States Public Health Service assembled data encompassing the amount and type of medical care, including hospitalization, which they received. Data representative of the smaller cities (less than 25,000 inhabitants) have been selected for the purpose of determining hospitalization practice. In the

presentation of these data, the communities are classified according to the amount and control types of hospital facilities available therein,² and the patients are grouped on the basis of family income status and type of care involved—obstetrical, surgical, or general medical. The county is used synonymously with the community inasmuch as a number of hospitals are situated outside city limits. The outlying territory is spoken of as adjacent or distant according to whether or not it represents locations in counties contiguous to the study county or in counties further removed.

Among the 268,000 persons residing in the 37 cities serving as the basis for this report, 10,540, or about 39 cases per 1,000 persons surveyed, were hospitalized during

* Adapted from *Hospitals* 16:55-61, Aug. 1942.

¹ George St. J. Perrott, Clark Tibbitts, and Rollo H. Britten, The National Health Survey; scope and method of a nation-wide canvass of sickness in relation to its social and economic setting, *Pub. Health Rep.* 54:1663-1687, September 15, 1939 (Reprint 2098). See also Rollo H. Britten, The National Health Survey; receipt of medical services in different urban population groups, *Pub. Health Rep.* 55:2199-2224, November 29, 1940 (Reprint 2213).

² Determination of control type of hospital and bed capacity was based upon data published in the Hospital Number of the *Journal of the American Medical Association*, March 7, 1936.

the study year. Of all hospitalized cases, 17 per cent are classified as obstetrical, 55 per cent as surgical other than obstetrical, and the balance or 28 per cent are referred to as general medical. In the last-named group are included those cases cared for in mental and tuberculosis hospitals; these, however, represent such a very small fraction of all cases hospitalized during the year that they have not received separate consideration.

About one-half of all persons surveyed are members of families receiving low annual incomes of less than \$1,000, one-third are in families with intermediate incomes ranging from \$1,000 to \$1,999, and the family income for about one-sixth of the persons is at the relatively high level of \$2,000 or more. The gross figures for all cities reveal that hospitalization rates show marked increases with elevation of income status. While only 35 cases are hospitalized per 1,000 low-income persons, the rates are 42 at the intermediate and 49 at the high-income level. It is thus apparent that intermediate and high incomes in average small cities assure 20 to 40 per cent more care to a given population unit than is obtained by a corresponding unit at the low-income level.

More than two-thirds of the cases select hospitals in their own communities, 14 per cent utilize facilities located in counties adjacent to their county of residence, and about 18 per cent select hospitals at more distant locations. The distribution pattern varies with the type of care received. Only 58 per cent of general medical cases are cared for in the community, while 26 per cent go to hospitals at distant locations. At the other extreme, 83 per cent of all obstetrical cases hospitalized receive care in the community and only 7 per cent travel to distant locations. In an intermediate position, 69 per cent of surgical cases utilize

community facilities and 16 per cent travel to locations one county or more removed from the community.

Variation in income at the lower levels fails to affect the selection of hospitals at different locations in any large way. Only in the income group \$2,000 and over is there any notable deviation from the all-income figures. At this high-income level, the fraction selecting hospitals in the community is somewhat below the average for all income groups, since nearly 23 per cent of these cases utilize hospitals at distant locations as contrasted with only 18 per cent of all cases hospitalized.

The majority of all cases (60 per cent) select nonprofit hospitals, about 20 per cent utilize facilities of proprietary control, 10 per cent are cared for in governmental hospitals, and 10 per cent accept services in institutions that are not included in the list of registered hospitals. The cases hospitalized in the governmental, nonprofit, and proprietary hospitals show large differences in the fractions of cases drawn from the three income groups. Nearly two-thirds of the cases in governmental hospitals are from low-income families, cases in nonprofit hospitals show 46 per cent in this category, and only 38 per cent of those in proprietary hospitals are drawn from the low-income group.

With the preceding discussion of data for all cities as a background, it is now proposed to present data to show how the frequency with which care is received and the distribution of cases by distance traveled are modified by variations in family income level within the study city and in the amount and control type of hospital facilities in the community.

Inspection of the data for individual cities at once reveals large variations in the fraction of the surveyed populations in the several income groups. While the average

for all cities indicates that approximately 50 per cent of all persons surveyed were in families with annual incomes of \$1,000 or more, the proportion so classified in the several study cities varies from less than 20 to more than 80 per cent. When arrayed on the basis of this measure of relative wealth, it is found in 12 cities that the group represents less than 40 per cent of all persons surveyed, in 6 cities it is in the range from 40 to 49 per cent, in 13 cities it is between 50 and 59, while the fraction so classified is 60 per cent or more in 6 of the cities. For convenience of presentation, cities where less than 50 per cent of the surveyed population were members of families with annual incomes of \$1,000 or more are referred to as poor cities while other cities are classified as wealthy.

The variation in economic status of cities as revealed by this index is associated in a large way with the frequency with which hospital care is received, particularly at the low-income level. As may be noted from the data presented in Figure 1, the gross hospitalization rate in poor cities is only 30 per 1,000 persons surveyed as contrasted with a corresponding gross rate of 47 in wealthy cities. The differences are even more pronounced among low-income persons. Low income in poor cities reflects an average rate of only 25. In wealthy cities, on the other hand, the corresponding rate of 50 indicates that low-income persons residing therein receive care twice as frequently. This tendency, though less pronounced, is evident also for individuals at the intermediate-income level (annual family income between \$1,000 and \$1,999). The hospitalization rate for individuals in families with high annual incomes of \$2,000 or more fails to respond to differences in city wealth in any consistent manner for the average city studied. The rate is relatively great in both city groups.

It is thus apparent that factors associated with high-income levels in cities are reflected by gross rates which greatly exceed those in poor cities. The influence of these factors is distinctly selective in character and affects particularly the frequency with which care is received at the low- and intermediate-income levels. In wealthy cities, low-income persons receive care as frequently as do those in the highest income group, whereas in poor cities they receive care only one-half as frequently. At the intermediate-income level the rate of 35 cases hospitalized per 1,000 persons surveyed in poor cities is midway between the rate of 25 for low and 48 for high-income persons in poor cities, while in wealthy cities the rate of 45 for this group is slightly below that for the other two income groups.

The influence of differences in economic levels of populations in individual study cities affects the hospitalization picture to such a large degree that the influence of differences in hospital facilities in the community can be effectively demonstrated only when this factor is held constant. Therefore, in the analyses which follow, the cities are first classified as wealthy or poor according to whether more or less than 50 per cent of the surveyed population residing therein is in families receiving annual incomes of \$1,000 or more. The cities in these two basic groups are then analyzed to determine the association between amount and control types of hospital facilities and the frequency with which care is received.

A measure of the amount of hospital facilities in the community is obtained by computing the ratio of beds in registered general hospitals to the population in the county where the study city is located. The existence of beds is indicated by a ratio expressed in terms of beds per 1,000 persons. For comparative purposes, wealthy and

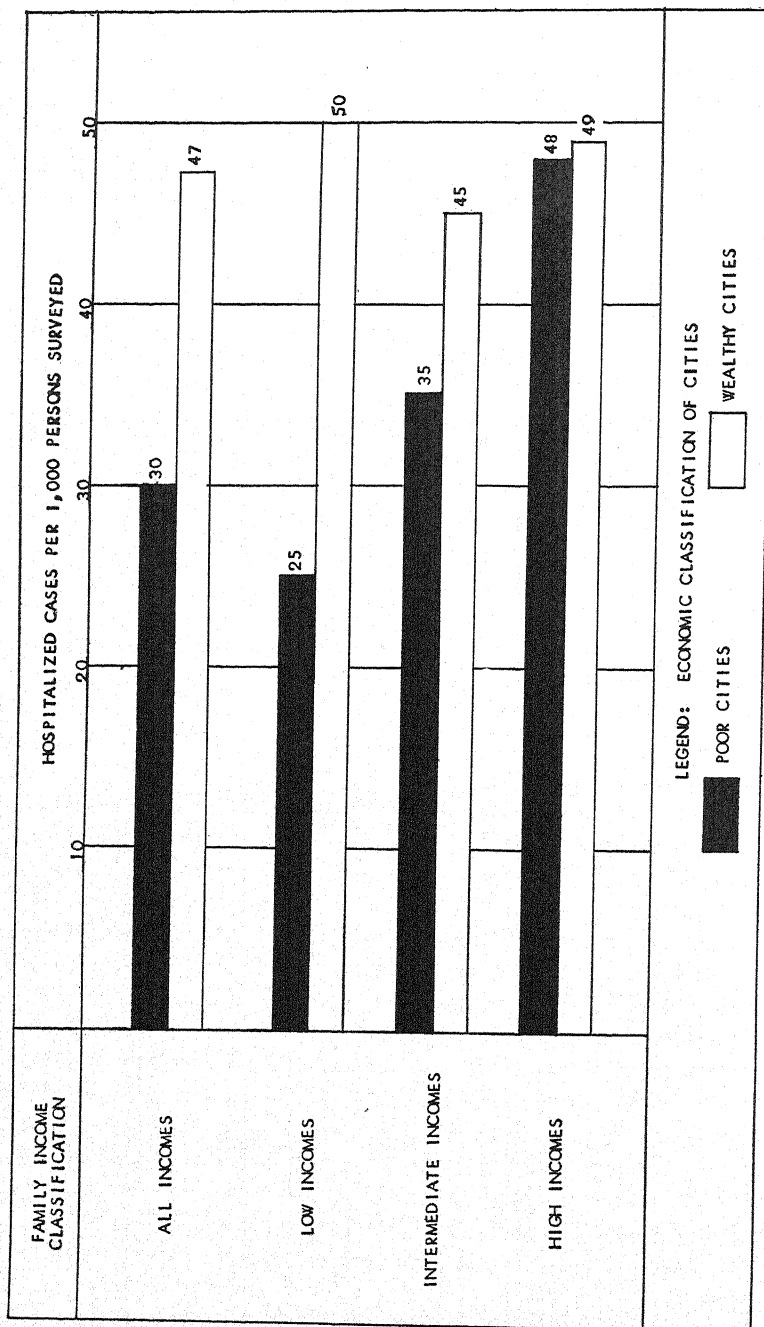


Figure 1—Hospitalization rates in families with low, intermediate, and high annual incomes, for poor and for wealthy cities

poor cities are grouped into four categories (Figure 2): those without hospital facilities, and those in communities where hospital facilities represent, respectively, less than 2, 2 to 3.9, and 4 beds or more per 1,000 persons in the county.

Among wealthy cities, only 2 were without registered facilities in the community, 3 were in communities with hospitals which represent less than 2 beds per 1,000, for 10 cities the community facilities represented 2 to 3.9 beds per 1,000, while for 4 cities the ratio of beds to population was 4 or more per 1,000. Of the poor cities, on the other hand, 5 were in communities without registered hospital facilities, 6 were in communities with less than 2 beds per 1,000, while for 7 there were 2 to 3.9 beds per 1,000. No poor city is located in a community having 4 beds or more per 1,000 population.

The influence of increased facilities in the community has no large effect upon the frequency with which care is received in poor cities. The gross rate is consistently low regardless of the extent of facilities in the community, varying only from 29 to 30 cases per 1,000 persons surveyed. In low-income families the rates are consistently below the gross rate in these cities. Persons in the intermediate-income group receive care more generously than do those in the lowest income classification, but the rate is not modified by differences in the community facilities. At the income level of \$2,000 or more, the rates are higher than for either of the other two income groups and only at this income level are increased facilities associated with increased rates. For the relatively small number of high-income persons in these poor cities, 40 cases per 1,000 are hospitalized where there are no facilities in the community, and this rate is increased to 44 and 54 respectively where there are hospital facilities

representing less than 2 beds and 2 beds or more per 1,000 persons in the community.

In wealthy cities, increased facilities in the community are associated with elevated hospitalization rates. With but a slight deviation from this trend, the gross rate of 39 cases per 1,000 for cities without hospital facilities in the community is increased to 59 for cities where there are 4 beds or more per 1,000 persons in the community. In an even more pronounced and regular way the rates for low-income persons are elevated from 40 to 63. Only for persons in the income group \$2,000 or more do the rates fail to reflect such increases. At this income level the rates are relatively high but the deviations between the groups of cities are not associated with variations in the amount of facilities in the community.

The findings give evidence that in the poor cities increase of facilities in the community fails to make hospital care more generously available to any but the most well-to-do element of the population. In wealthy cities, on the other hand, the reverse is true, the frequency with which care is received being greatly boosted at the low-income level by increases in facilities whereas for the highest income group such increases had no consistent influence.

Studies of hospital finance^{3, 4} reveal that hospitals located in small counties and especially those existing singly tend to have similar financial structure regardless of control type, and that such hospitals depend to a large degree upon fees from patients to meet their operating budgets.

³ Elliott H. Pennell, Joseph W. Mountin, and Kay Pearson, *Business Census of Hospitals, 1935; General Report*, Washington, Government Printing Office, 1939. (Supplement No. 154 to *Pub. Health Rep.*)

⁴ Joseph W. Mountin, Elliott H. Pennell, and Kay Pearson, Hospitals existing singly in counties have similar financial structure, *Pub. Health Rep.* 56:498-509 March 14, 1941.

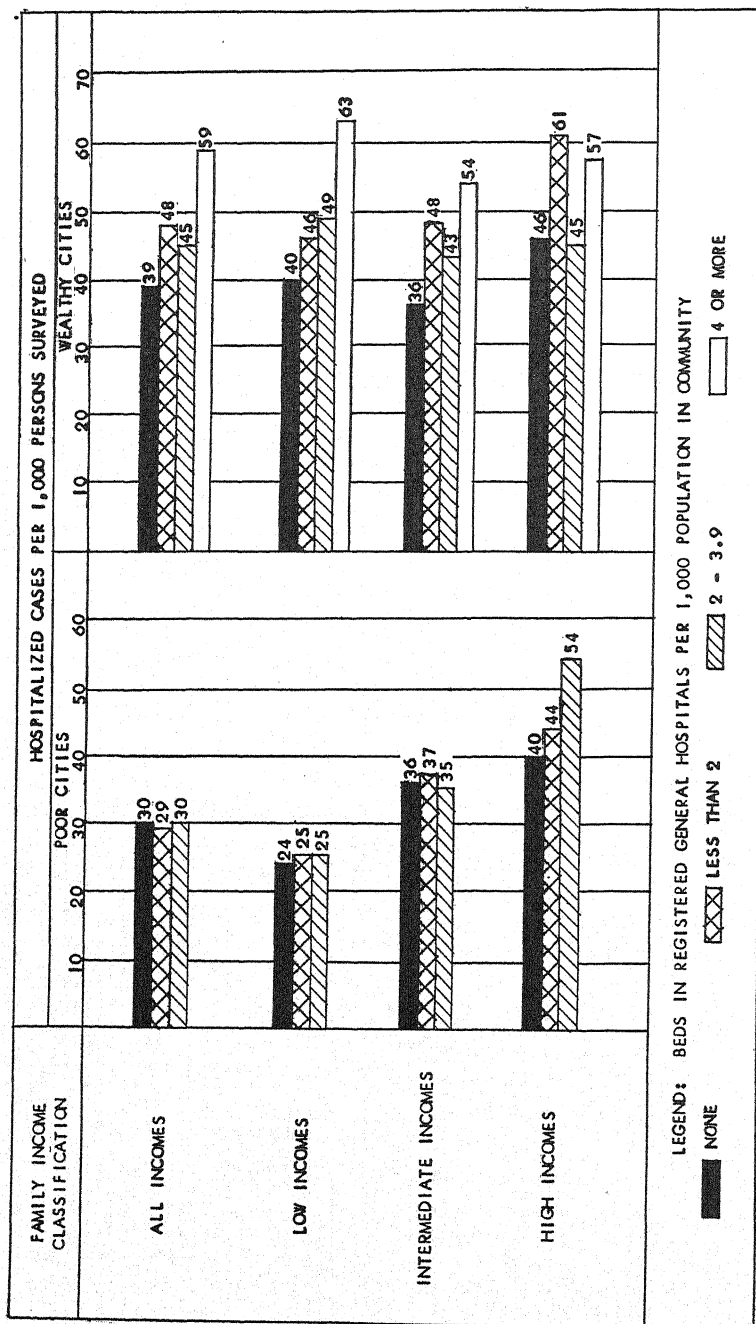


Figure 2—Hospitalization rates in families with low, intermediate, and high annual incomes, for poor and for wealthy cities having different numbers of beds in registered general hospitals

Such a situation would suggest that small community hospitals can serve more adequately all elements of the population when the proportion in the higher income groups is large enough to provide sufficient pay patients to assure full utilization of the hospital, and when reasonable provision is made for the extension of care to persons who are unable to pay the complete cost of service.

The data presented in Figure 3 for cities in communities having one or more registered hospitals indicate that care is received less generously by persons residing in poor than by those in wealthy cities regardless of control type of hospitals in the county. When family incomes are less than \$1,000 the differences are particularly pronounced, the rates in poor cities being only one-half to two-thirds as great as those in wealthy cities.

In poor cities, regardless of control type of hospitals in the county, low-income persons receive care less frequently than do those in any other income group, those in families with intermediate incomes of \$1,000 to \$1,999 receive care somewhat more generously, and rates are considerably elevated for persons at the high-income level. Differences in the control type of hospitals in the community fail to effect any consistent modification of hospitalization rates.

In contrast to the findings for poor cities, the control type of hospital in the community modifies greatly the hospitalization picture in wealthy cities. The lowest gross rate (43) is recorded in cities where facilities are limited to those of proprietary control. Limitation of community facilities to nonprofit hospitals results in slightly more generous receipt of care as reflected in a rate of 46 hospitalized cases per 1,000 persons surveyed. Where there are combinations of two or more control

types of hospitals the rate is elevated to 54. The influence of generally high income in these wealthy cities is most greatly reflected in the rates for low-income persons. Where facilities are limited to those of proprietary control, the rates vary from 41 cases hospitalized per 1,000 persons at the low-income level to 55 cases for high-income persons. Limitation of hospitals to nonprofit control results in rates of 50, 42, and 46, respectively, for persons at the low, intermediate, and high-income levels, whereas combinations of control types reflect corresponding rates of 60, 51, and 52. It is thus apparent that the presence of nonprofit hospitals or combinations of two or more control types reflect highest rates for low-income persons.

The extent of facilities in adjoining areas was investigated to determine the possible tendency for such facilities to supersede or supplement community facilities. For this purpose the beds per 1,000 in registered general hospitals in the broad area including the study county and all counties adjacent thereto is used as an index to the extent of accessible facilities. Where this index is less than 3 beds per 1,000 population the facilities are referred to as limited, whereas generous facilities describe those equivalent to 3 beds or more per 1,000.

In the instance of only 4 of the 19 wealthy cities are the facilities in adjoining counties classified as limited, whereas all but 3 of the 18 poor cities are so located. Extensive facilities in adjoining areas fail to affect materially the hospitalization rates in wealthy cities. Low-income residents of the 3 poor cities so located, however, fare much more generously in hospitalized cases than do those in other poor cities. This is also true, to a somewhat lesser degree, for persons in families reporting incomes of \$1,000 to \$1,999.

The preceding discussion points out that

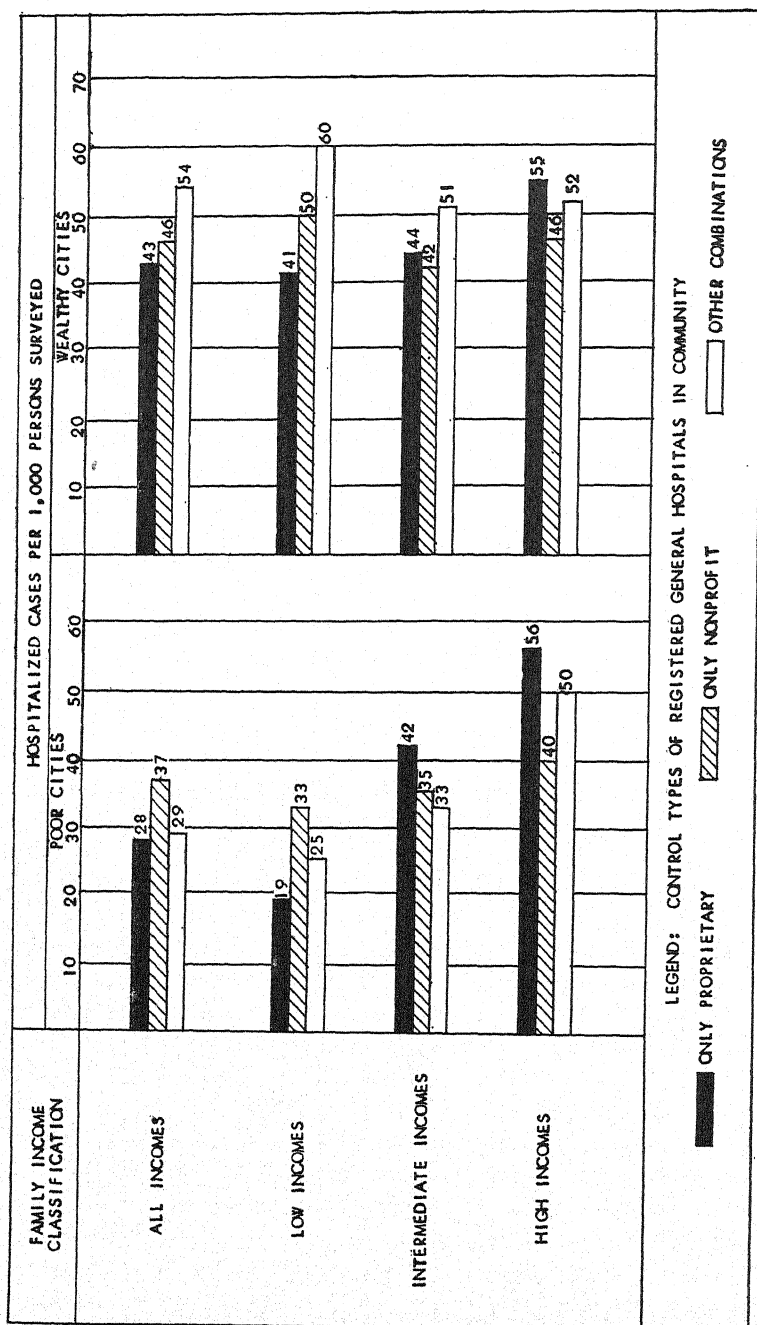


Figure 3—Hospitalization rates in families with low, intermediate, and high annual incomes, for poor and for wealthy cities having registered general hospitals under different types of control

opportunities for hospital care in and about poor cities are such that persons in low-income families obtain such care much less frequently than do those in the higher-income groups. Generally, these cities are so located that facilities in adjoining counties are limited in amount. In wealthy cities, on the other hand, the hospitalization rates at the three income levels are more nearly equal. The majority of these wealthy cities are located in counties where hospital development in adjoining areas is relatively great.

Investigation of data concerning the location of hospitals where care is received reveals the fact that local hospitals are utilized by a majority of those obtaining care. Of cases among residents of average wealthy cities 73 per cent utilize hospitals in the community, 14 per cent travel to adjoining counties, and 13 per cent are hospitalized at distant locations beyond the limits of adjoining counties. Residents of the average poor city depend upon local facilities to a somewhat lesser degree, only 59 per cent utilizing hospitals so located. About 15 per cent use hospital facilities in adjoining counties while 26 per cent, or nearly twice as high a fraction as in wealthy cities, travel to distant locations for care.

The proportion utilizing local hospitals increases with increased amounts of facilities in the community (see Figure 4). In wealthy cities the fraction varies from 5 per cent in cities without registered general community facilities to 85 per cent where such institutions represent 4 beds or more per 1,000 population; in poor cities the increase is from 4 per cent where there are no registered general hospitals to 74 per cent where the beds are within the range from 2 to 3.9 per 1,000. With these increases there are corresponding declines in the fractions cared for in adjacent counties and at distant locations. Throughout the com-

parisons there is a marked tendency for residents of wealthy cities to utilize hospitals in adjacent areas more generally than do residents of poor cities, while distant locations serve proportionately higher fractions of those hospitalized among residents of poor cities than of those in the other group. This doubtless reflects the relatively greater facilities in counties adjoining those where wealthy cities were located.

The control type of hospital in the community exerts some influence upon the distance traveled for care. Where facilities are limited to proprietary hospitals, about one-half of those hospitalized in wealthy cities and 56 per cent of those in poor cities utilize such local facilities. Of persons hospitalized in wealthy cities, 30 per cent receive care in adjoining counties and 21 per cent at distant locations, while only 2 per cent of those in poor cities travel intermediate distances in contrast with 42 per cent who travel to distant locations. The presence of other control types of hospitals in the community results in a majority of all cases utilizing local facilities and the fraction becomes greater as the local opportunities for care are increased by combinations of control types in both wealthy and poor cities.

SUMMARY

The data presented clearly demonstrate that the general income level in small cities is an important measure of factors which determine the amount of hospital care received by persons residing therein. In wealthy cities where persons with relatively high incomes predominate, the availability of hospital care, as reflected by hospitalization rates, is essentially equalized so that low-income persons receive care as frequently as do those in the higher-income groups. In poor cities, on the other hand,

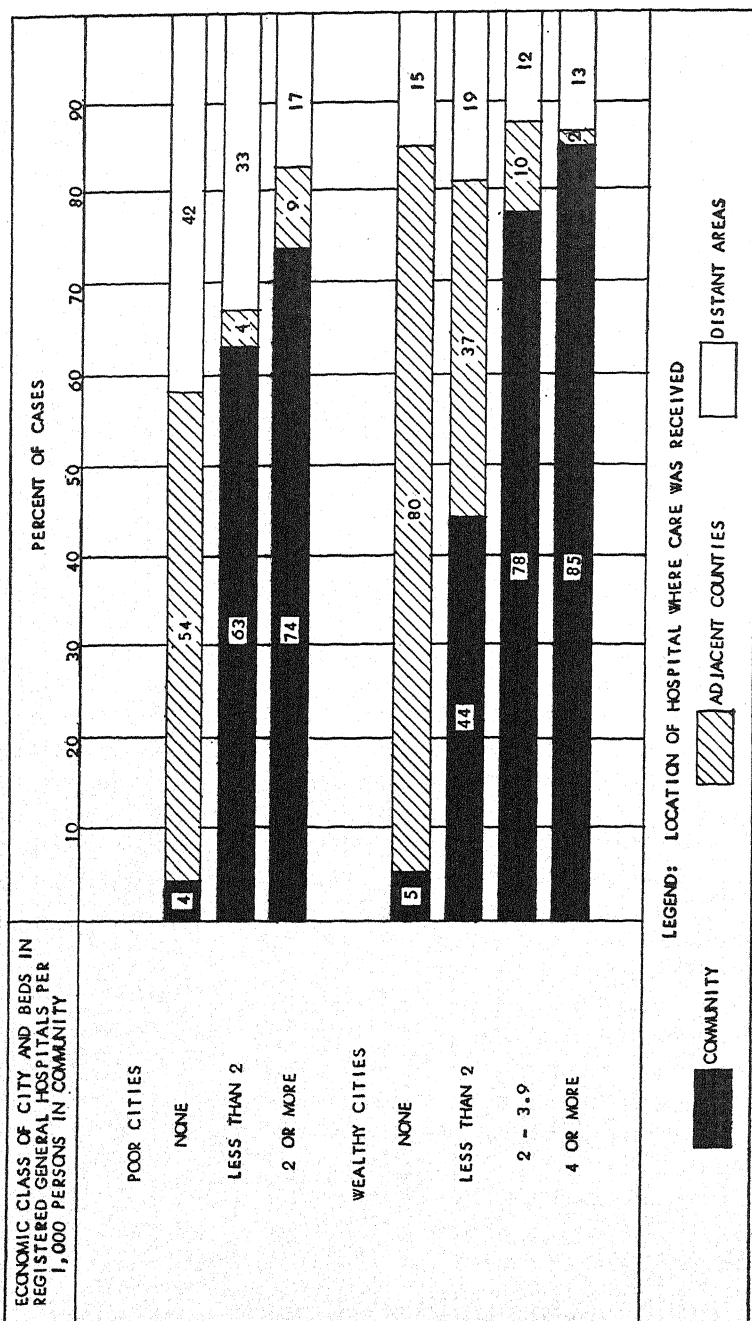


Figure 4—Percentage of hospitalized cases among persons in poor and in wealthy cities having different numbers of beds in registered general hospitals, by location of hospital

hospital care among high-income persons is curtailed but little, whereas the hospitalization rate among low-income persons is reduced by one-half from that which prevails for the same income group in wealthy cities.

Differences in the amount of facilities and control type of hospitals in communities where poor cities are located affect but slightly the frequency with which care is received except that increased facilities reflect some increase in the hospitalization rate at the high-income level.

In wealthy cities variations in both the amount of facilities and the control type of hospitals have an important influence upon the frequency with which care is received, particularly at the low-income level. Increased facilities reflect increased rates of care. In communities where hospitals exist,

limitation of facilities to those of proprietary control is reflected by rates for low-income persons which are below those for any other income group. When nonprofit hospitals or the combinations of two or more control types exist in the county, the rate for low-income persons is not only increased but is elevated to a level above the rate for persons in the intermediate- and high-income groups.

The majority of all hospitalized persons utilize local hospitals when such facilities exist. The proportion utilizing facilities in the community increases progressively as the facilities become greater in amount. Where only proprietary hospitals are located in the county, the fraction seeking care in other areas is greater than for any other class of city except those without local facilities.

6. Health Center Designed for Rural Needs, *by J. R. McGibony, M.D.**

A BASIC weakness in the health and welfare structure of the nation is reflected in the need for improved health in rural areas. A markedly increasing number of rural communities, awakening to the need for improved health conditions, are seeking information to guide them in solving their local problems. The goal of many of these groups is a health center combining public health and clinical facilities and, in some instances, limited inpatient services.

However, the construction and operation of hospitals of fewer than 30 to 50 beds has long been controversial despite the fact that about 50 per cent of the general hospitals have fewer than this number. Admittedly, they are disproportionately expensive both to build and to maintain since they come within the range of rapidly diminishing returns from the standpoints of efficiency, economy and adequacy of care given.

Thus, under ordinary circumstances one would hesitate to recommend that a community embark upon such an expensive and possibly unsatisfactory venture. Examination of costs causes one to pause and reflect not whether the community needs such services but whether it can afford them. Every alternative, therefore, should be fully explored, including contracts with existing hospitals even if at a considerable distance. Such a contract, with local investment in full-time ambulance service, would probably be far cheaper in dollars. The larger hospital would have to be used anyway for most surgery and other complicated cases.

Despite the higher costs involved in the construction and operation of small hospitals, many communities desire such institutions because of pride as well as local neces-

* Adapted from *Mod. Hosp.* 66:57-62, Mar. 1946.

sity. They point out, correctly, that local facilities are essential to serve their health needs and that lack of such facilities is a major factor in discouraging physicians from remaining in rural communities. Family physicians are not inclined to transfer average cases to hospitals even 15 or 20 miles distant, where they can be in daily attendance; nor is such an arrangement satisfactory to patients and their families.

Since it is certain that large sums of public and private funds will be expended within the coming months for the construction of small institutions, and often without competent technical advice, the following material has been prepared as an aid in obtaining reasonable value for the money invested.

COORDINATED PROGRAM

An important initial step in formulating a hospital program for any community is to obtain all possible information on the subject from the state health department and other agencies concerned with hospitals and health facilities. This is of particular importance when a small facility is contemplated which will benefit by collaboration with the local public health program. Most states have under way, or are considering, surveys of all such facilities to determine additional needs. Any community plan will benefit by coordination with the total state program.

Operation of the local institution should contemplate affiliation with neighboring hospitals and medical centers. Quality of services rendered can be materially raised by use of available consultants, equipment, and adjunct clinical facilities. Administrative guidance and advice from the larger, better staffed institution will result in economy, efficiency and other benefits to the small hospital, to its patients, and conse-

quently to the community. Only by some such arrangement can fully adequate care be assured where limited facilities, staff, personnel, and equipment are available.

ESTIMATES OF NEEDED BEDS

To estimate the number of beds required to serve a community adequately on a reasonable standard usually necessitates a compromise between a theoretical ideal and practical achievement.

On an ideal basis one must assume that a sufficient number of beds is the number necessary to accommodate all persons (other than tuberculosis and mental disease cases) requiring general hospitalization. One must assume, too, that all factors tending to limit hospitalization, such as distance, inability to pay for service, and unwillingness to enter hospitals, will be removed or reduced to a minimum. From 75 to 80 per cent of beds occupied should be considered a normal daily average.

With these assumptions, the figure of 4.5 beds per thousand population has been determined necessary to meet the total needs. However, it is neither necessary nor desirable to establish beds in every community in exactly this ratio for several reasons.

In rural areas, with which this discussion is primarily concerned, it is believed that 2.5 beds per thousand population should be sufficient for the average community. Primary and secondary medical centers in which are concentrated specialized skills and facilities will serve patients referred from outlying areas as well as from their immediate areas. The ratio of beds then naturally becomes higher for the resident population of a given urban area.

This is the rationale for a difference in rural and urban bed ratios. It does not mean a different requirement for rural and urban people but an adjustment of bed

concentration in accordance with ability to render a comprehensive service.

Population should be figured for the normal retail trade area, which is usually a radius of from 10 to 25 miles, depending somewhat on the density of population.

In initial construction, it is far better to provide a minimum of beds, attached to a health center, with provisions for future expansion as the factors limiting hospitalization are overcome. Thus, in a rural area which has never had a hospital, considerably less than the bed ratio given might well constitute the initial investment. Hospital operation is expensive and the community should not be burdened with more than can be supported efficiently.

The small number of beds in the typical rural health center and hospital will tend to make the community health and hospital conscious by concentrating on that phase of inpatient care which it is probably best fitted to render, that is, normal obstetrics. In 1943 the general average of hospital births for rural areas was 51.2 per cent, dropping to less than 25 per cent in some areas. In contrast, urban areas revealed 86.9 per cent hospital births. Thus, great expansion of service is possible.

While it is true that a good home delivery is better than one in a poor hospital, far too many rural homes cannot provide adequate facilities for confinement and maternal and infant care. With proper management a much larger proportion of the approximately 20 babies born to each thousand population in rural areas can receive proper obstetrical care. This would reduce the number of babies who are born alive but who die within the first year, more than 40 of each thousand live births.

At the same time much suffering would be saved the mothers, of whom more than 2.5 out of each thousand die as a result of complications of pregnancy each year.

Hospital care for general disease conditions would, of course, be furnished to the limit of adequacy of facilities. This would vary with type of service needed, the physical plant, funds available for annual operation, nearness of other facilities and, of major import, the quantity and quality of medical personnel available.

AID IN DIAGNOSIS

Study by a competent hospital consultant would aid in determining the need, including that for maternity care as previously discussed, by analyzing sickness, accident and death rates in the community. Records of actual sickness rates are not usually available, as the vast majority of illnesses cause only temporary disablement, are not communicable and hence are not reported. While in the average community the majority of patients are successfully treated in the home, hospitalization, even in a very small health center, would often make the patient more comfortable, aid in earlier and better diagnosis, help prevent complications, and promote early recovery. At the same time spread of certain diseases to others would be better controlled.

Few communities requiring an institution of this size will have sufficient major surgical cases to permit limitation of practice to that specialty. Approved hospitals are attempting to limit performance of surgery to members of their staffs who not only have adequate experience and training but limit their practice to this field. This is not a reflection upon the family physician, the "general practitioner," for, although he is not a surgeon, he is, in truth, a specialist of the first order. No one can maintain proficiency in every phase of medicine and surgery.

The attitude and ability of the local medical profession will determine, in large

measure, the type and quality of care given and, because of this, will spell the success or failure of the health program. Both the practitioner and his patients must realize human limitations and the impossibility of duplicating research medical center care in an institution and under circumstances designed for local rural use.

Thus, obstetrical and general medical services would form the larger part of the bed care given in the small rural health center.

SITE SELECTION

A hospital site should be selected because of one factor, suitability for present use and for future expansion. The minimum size should permit at least doubling the original building without crowding or encroachment.

Generally speaking, the small rural health center is better patronized and can discharge its community obligations more efficiently if it is located as near as possible to the center of the town or village. This is particularly true if public clinics and private physicians' and dentists' offices are combined with bed facilities. Traffic and other objections present in the cities are not often of great import in the smaller community.

Locations for hospitals and health centers are often selected because of availability as a gift or because of local governmental ownership rather than for adequacy or acceptability for the purpose. Thus, because of inconvenience to patients, staff, and visitors, and difficulty in obtaining utilities and supplies, the donated or initially free site may prove in the long run to be the most expensive.

TYPES OF BUILDING

Before beginning drawings of the building, consideration of present and ex-

panded services must be fully explored. Bed space and public health areas must be planned to permit future expansion to at least double the size and capacity without excessive cost. Local circumstances and practices may make it necessary to provide separate or somewhat different accommodations for different groups of patients.

Public health facilities in combination with small nursing units are finding increasingly favorable consideration. These facilities will vary with present local needs, educational and economic levels of the community, and attitude and interest of the state and local medical groups. Space for such activities will usually include offices for the full-time or part-time health officer, public health nurses, sanitary engineering staff, health education or social service specialists, and public clinics.

Unless these features are incorporated, it becomes even more doubtful that a community should undertake a hospital building program, as the limited services otherwise available would be extremely costly and even a minimum standard of medical care would be difficult, if not impossible, to maintain.

Office space and examining rooms for private physicians and dentists as a part of the building, or adjacent thereto, will enhance its value as a small health center.

Combining all these facilities promotes continuity of health and medical services, provides convenience to patients and staff, and serves economy through unified administration and use of common adjunct services, such as x-ray and laboratory. Such combination is almost essential for success of the small institution if it is to be responsible for really adequate care upon a sound economic basis.

For hospital purposes alone approximately 575 square feet per bed are necessary to provide bed space and all adjunct

services. Bedrooms are designed preferably for two, but never more than four, beds in a small facility, each bed requiring at least 80 square feet in the room. Thus, the 10 bed health center and hospital will require 5,500 to 6,000 square feet of floor space just for the hospital features. Construction should be on one floor and as nearly fireproof as possible.

Additional space required for public health activities will, of course, vary, but not less than 2,000 square feet will probably be necessary.

For private physicians' and dentists' offices and examining rooms, a minimum of 300 square feet for each may suffice, exclusive of waiting rooms which may be joint or separate.

The architectural unit of the Hospital Facilities Section has devised a plan which embodies most of the basic needs of the small but fairly complete health-center hospital and yet is flexible enough to permit the local architect to adapt it to specific community requirements.

Nursing and administrative supervision is maintained from a central point. Immediate inpatient areas receive desirable exposure. A compact unit for emergency surgery and obstetrics is shown with adequate separation; it has only a pass window for sterile supplies opening between the work and delivery rooms. Some hospitals still use the operating room for delivery but the practice is not approved by some authorities, even in small hospitals. Limited driveways provide for both service and main entrance.

If initial construction is minimum, future expansion is possible on any axis of circulation. This arrangement also permits separate nursing units for different categories of patients by simple duplication.

Private office space, of course, may not be necessary or desirable in some instances.

For this reason that area is not shown in complete detail and may be omitted without affecting the basic plan.

In those unusual communities in which satisfactory facilities are already available for public health activities, some readjustment in the area shown will be indicated. Modular design will permit the competent local architect to accomplish this without major dislocation of basic pivotal hospital units shown.

REMODELING EXISTING BUILDINGS

A common impression of the public is that a hospital is simply a house or building with beds, which is far from the truth. A hospital, however small, is a complicated institution, designed as a tool for the physician, and to a marked degree its efficiency in planning, organization, and management affects the efficiency of his services to the patient.

An existing house or building, not designed as a hospital, usually proves to be the most expensive of ventures when converted to such use. Upkeep is higher, efficiency, safety, and sanitation are usually much more difficult; remodeling is constant, expensive, and never satisfactory.

CONSTRUCTION COSTS

Assuming, for practical purposes, that the average small community will need, initially, for 10 beds and other services, approximately 8,000 feet of floor area, the matter of construction cost arises. Exact figures cannot be specified, of course, because of differences in labor and material costs in various sections of the country. Such figures can be supplied by an architect who is familiar with local conditions. The architect should be included on the planning committee from the beginning

and preferably should have had experience in hospital building.

To the local costs of ordinary house or building construction must be added approximately 20 per cent to cover the unusual expensive methods, material, and equipment required for hospitals. Thus, costs of hospital construction will vary from \$5 to \$10 per square foot, which may be roughly divided into 50 per cent for labor and 50 per cent for material and equipment.

Equipment, including x-ray, sterilizers, beds, desks, and other necessary items, will amount to from \$500 to \$800 per bed, or approximately \$1 per square foot of floor area.

Supplies, to begin operating, amount to about \$200 per bed.

OPERATING COSTS

Only hospital services will be considered here, as public health activities will vary with funds appropriated for the purpose, with the interest and ability of the director and staff, and with the amount of interest it is possible to stimulate in the people of the community by health education measures.

The major expenditures for the average small hospital are for personnel, food, and other supplies, all of which are proportionately higher than for larger institutions. Expenses of operation based on experience may be roughly divided as follows in hospitals throughout the country:

Salaries and wages	50 per cent
Supplies and equipment	20 per cent
Foodstuffs	15 per cent
Heat, light, power	5 per cent
Repairs and replacement	5 per cent
Insurance and miscellaneous	5 per cent

PERSONNEL

The smaller the institution the higher will be the proportion of salaries because

there is a limit to patient-personnel ratio in rendering even minimum adequate care.

For comparative purposes, the general hospitals in the United States, in 1944, averaged 60 employees for each 100 beds in institutions up to 25 beds.¹ Larger proportions are required in the smaller units and the number recommended by hospital administrators is 1.5 employees for each patient. It is not feasible for the poorer communities to begin with the latter ratio, but an absolute minimum for the 10 bed health center and hospital might be considered as one employee per bed. Additional services would have to be contributed through clubs or other organizations and by private nurses.

While rearrangement of positions, duties, and salaries would be caused by local conditions (including assumption of part-time hospital work by members of the public health staff, particularly the director and technician), the following minimum, with average annual salaries, exclusive of contributed services, is suggested:

1 director-chief nurse	\$ 3,000
2 staff nurses @ \$1,800	3,600
1 clerk-stenographer	1,500
1 technician	1,800
2 attendants @ \$1,200	2,400
1 cook	1,500
1 assistant cook	1,200
1 laborer	1,200
Total personnel	\$16,200

ANNUAL SUPPLIES AND EQUIPMENT

It has been estimated that from \$100 to \$200 per bed is necessary for supplies on hand to permit a hospital to begin operating. In 1944 annual costs of supplies in 1,300 hospitals under 25 beds averaged \$455 per bed, which would mean from \$4,500 to \$5,000 per year for the 10 bed health center

¹ *Hospitals* 19:37, Aug. 1945.

and hospital under discussion. Food constitutes about half of this cost, the remainder being for linens, dishes, cleaning and household supplies, fuel, and miscellaneous items. Annual equipment purchases of hospitals of this size showed an average cost of \$78 per bed in the United States in 1944.

Light, power, maintenance and repairs would approximate \$100 per bed, a total of \$1,000 for the 10 bed unit.

Insurance, legal, and miscellaneous expenditures should not exceed \$1,000.

Laundry costs, part of which might be absorbed in some of the charges listed, would be an important fixed cost. It has been found uneconomical, generally, for a hospital under 50 beds to operate its own laundry, so the letting of such work to a commercial laundry, if one is available, while it would require a larger linen stock, would be the best solution. Hospitals will average 12 pounds of laundry per patient each day. Assuming the 10 bed unit to average seven patients daily, this would mean 30,000 pounds of laundry annually. At an average commercial rate of 5 cents per pound, this totals \$1,500.

Estimates then, for operating the 10 bed unit, would cost the community as follows:

Salaries and wages	\$15,000
Supplies	4,700
Equipment	800
Laundry	1,500
Light, power, repairs	1,000
Insurance, miscellaneous	1,000
Total annual cost	<hr/> \$24,000

Based on an annual cost of \$2,400 per bed, the daily cost would be \$6.57. However, no hospital can expect 100 per cent occupancy, so, on the theory that there would be a daily average of seven patients for the 10 beds, the cost per patient would be \$9.40 each day, and this with a minimum staff.

That these theoretical figures can be reduced in actual practice is shown in an analysis of 113 hospitals in Kansas as reported by Beelman and Steinmeyer in the *Kansas Government Journal*, July 1945. This analysis revealed that hospitals of from 1 to 25 beds numbered 52, or 46 per cent of all hospitals studied. They had 644, or 11.6 per cent, of the total beds, for an average size of 12 beds. These beds were only 50 per cent occupied, rendering 8.2 per cent of all in-patient care.

Costs in this group of small hospitals averaged \$4.99 per day per patient. While they might be considered as an average sample for the country, the wide variation in cost accounting, the type, variety, and quality of service, salary scales, and price level of supplies was so apparent that specific application of their average experience to any other particular community might be questionable. Too, the volunteer services and shortages among physicians, nurses, and even untrained personnel during the war year 1944, the period covered by the report, make difficult the projection of findings into the postwar years.

However, it can be seen that hospitals are expensive institutions and the smaller they are the more expensive per patient. It may be difficult for the average community requiring only this small unit to operate it successfully without outside aid or by some assured method of prepayment.

The first consideration, then, might be the affiliation with a hospital insurance plan, such as the Blue Cross Plan, or comparable cooperative. At the present time approximately 20,000,000 people in the United States prepay hospital bills through the Blue Cross method, while at least 10,000,000 more benefit from commercial and industrial plans. About one of every eight members receives hospitalization during a year, for an average stay of eight days.

Costs vary with services rendered but average about \$2 a month per family.

In the community under consideration a portion of funds so collected would have to be used to defray expenses of patients referred to larger hospitals for special services, since the 10 bed facility could not be sufficiently equipped and staffed for complete diagnosis and treatment of all conditions.

POOR HOSPITAL A DANGER

Regardless of these collections, however, the local government or other agencies would probably have to assume a substantial portion of the financial burden. A considerable portion of patients in the average community hospital are "free" cases. Some responsibility would have to be assumed if those in greatest need are to receive care. The hospital should not function on such a deficit basis, curtailing standards of care in order to survive, but should be paid for the high quality of service given even though it is limited in scope.

If such a program is feasible for the com-

munity, improved health will contribute to improved economics, so that the problem should become progressively easier. The decision, made today, must be projected into the future, a future perhaps of uncertain economic and social conditions. A poor hospital is a danger to the community, and a venture as expensive as a good hospital should not be undertaken unless the founders are able to foresee events sufficiently to avoid an embarrassing financial burden.

From the standpoint of cost, however, the question may be not that the community cannot afford it but, measured in lives and suffering, that it cannot afford to be without it.

For communities planning health centers and hospitals, the Hospital Facilities Section of the U.S. Public Health Service has available plans and suggestions for various types and sizes of institutions. Also, the American Hospital Association has, among other valuable material, an excellent brochure entitled, "Measuring Your Community for a Hospital."

7. How the Blue Cross Came to Rural America, *by Virginia M. Liebeler**

THEY said it couldn't be done. They said farmers and villagers were independent thinkers and could not be enrolled in hospitalization groups large enough to be self-sustaining. They said there wasn't the advantage of mass psychology. They said such groups would be a continual drag on the resources of the association and on the reserves that the large metropolitan predominantly-male groups had built up.

We said farmers get sick, too. We said employees in small business firms in villages have accidents. They need help and often are less able to pay hospital bills than are the middle-class or low-income groups in the metropolitan areas. We said small-town

hospitals have credit problems, too. Farmers are often short of cash and hospital administrators can't take potatoes or pigs from all the farm families hospitalized.

We said we knew that pioneering in the rural areas would be hard. Any pioneering is hard. We knew that from four years' experience in enrolling large business firms under the Minnesota Hospital Service Plan in the Twin Cities, especially in the early days before there was a reserve when it was no "push-over" to convince hard-headed businessmen that the Blue Cross venture was sound.

* Adapted from *Mod. Hosp.* 62:53-56, Feb. 1944.

We said, "Let's give it a try. Let's take one spot as a proving ground and see what develops."

And so we did.

Who were the "they's"? Some level-headed businessmen whose opinions had been sought as to the soundness of carrying the Blue Cross into the rural areas.

Who were the "we's"? Those who were fevered with enthusiasm to bring this voluntary, self-help plan within reach of every self-supporting man and woman. Those with a lust for pioneering, with stars in their hearts because they felt they were helping to build a better America.

The board members of the Minnesota Hospital Service Association agreed, at the end of several months of careful thought, to risk one venture.

Immediately, a flock of questions popped up. Where to begin? Who would be eligible for enrollment? What hospitals would be acceptable as contracting hospitals? What would promotion cost? How could farmers be successfully enrolled? How could groups be obtained, in small towns or rural areas, large enough to be self-sustaining?

With the population so scattered in the rural areas, wouldn't it be almost impossible either to enroll people or to make collections from them? Wouldn't groups be so small and so few that each subscriber might be considered an "individual" subscriber, hence a hazardous risk? Wouldn't the utilization be extreme?

We took the plunge at Stillwater, a town about thirty miles from the Twin Cities. Traveling men had for years labeled Stillwater a "tough" town to sell. But within six weeks of our initial meeting, more than 50 per cent of this conservative town's 7,000 people were enrolled under the Blue Cross; within six months, nearly 80 per cent. Our original enrollment campaign

lasted only six weeks. Only one plan representative worked during that period. Occasionally, after the initial campaign, a representative went back for subsequent meetings. Stillwater was a success.

A large share of the credit for this successful enrollment must be given to the cooperative hospital administrator and her able staff, to the staff doctors, to the cooperative civic leaders and employers, and to the local newspaper—the *Stillwater Gazette*—which gave us front page, headlined news stories or pictures practically every day of our campaign there. For successful enrollment, cooperation of the press is vitally important. There is an authenticity about the printed word, particularly when it comes from a disinterested source, that carries far. The home folks and the neighboring farmers quote the newspaper as they do the Bible.

Doctors, druggists and the hospital, at my suggestion, mailed Blue Cross literature in their statements, displayed Blue Cross posters, and carried supplies of Blue Cross explanatory pamphlets on their counters or waiting room tables. The hospital's staff doctors, who enrolled immediately, wore Blue Cross buttons—the more conservative not always happily for our first buttons were easily visible without the aid of a microscope. Yet, they wore them, and soon the townspeople, too, wore them, indeed demanded them when we failed to give them promptly.

With this cooperation, the groundwork for which had been carefully laid, one dared not fail.

During 1939, the year we started our state-wide development, only two other member hospital towns affiliated, Fergus Falls and St. Cloud. Here, too, the hospital administrators, doctors, civic leaders, and employers cooperated. At Fergus Falls, the hospital administrators, after our departure,

actually conducted some enrollment meetings themselves. Enrollment in these two towns, too, having progressed very satisfactorily, the board decided state-wide development might be safely undertaken. But as the association enrolled subscribers only in the communities in which the local hospitals affiliated, enrollment activities were somewhat curtailed.

We had divided the state into nine counselor districts corresponding with the state medical society's districting. We had hoped that all of the hospitals in each counselor district would affiliate with the Blue Cross Plan at the same time. This would have simplified enrollment procedures and cut expenses. Unfortunately, however, all of the hospitals in a certain district did not become hospital-service-minded simultaneously.

However, in 1940, the year the Minnesota state legislature passed the regulatory act which gave us a legal status, 46 rural hospitals in widely scattered areas of the state affiliated. With only four Blue Cross representatives covering this entire area, with commercial competition keen and the Blue Cross Plan relatively unknown, real work was necessary to put the plan across.

By the end of 1940, we had a total of 75 member hospitals in the cities and rural areas. Today we have 114. Our total enrollment is 540,000, of which more than 100,000 are in small towns and villages and on farms throughout the state.

Our enrollment campaigns throughout the state are practically the same in each community and are patterned after our most successful venture, Stillwater.

Our first meeting is with the hospital board members, the hospital administrator, billing and admission clerks. Often, too, the staff doctors attend these meetings. If they do not, we meet with them later. At this meeting we explain the Blue Cross Plan

in detail, its nonprofit nature, its reasons for existing, the costs, benefits, and enrollment regulations for the subscriber and, last, the rate of payment to member hospitals.

Responsibility of the member hospital is strongly stressed. The hospital is to accept the subscriber's Blue Cross card in lieu of "down payment." Subscribers are to leave member hospitals with receipted bills in their hands for the full amount for which the association is responsible. The hospital is the focal point for the Blue Cross representative.

At this meeting, the hospital board members and medical men are asked for their active support and cooperation. It is our aim to instill in the hospital board members, the hospital staff, and the local doctors a feeling of responsibility for the success of the plan in their community. As these men are often among the most influential in town, their cooperation is invaluable.

We ask them to arrange speaking engagements for us at all civic and service clubs in the town. We have met with and sung the songs of Rotarians, Kiwanians, Lions, and senior and junior Chamber of Commerce men from the Canadian to the Iowa border and from North Dakota to Wisconsin.

As practically every employer in town belongs to at least one of these clubs, we are able to tell our story to practically every businessman in a few hours' time. It would take a Blue Cross representative from fifty to one hundred hours to do this work individually, depending on the number of employers in the town.

These meetings generate enthusiasm. We give a short chart talk (we believe in visual education), the same talk we give to employees. Many employers ask us, at these meetings, to come to their firms immediately. Enrollment then proceeds along the

same lines as in metropolitan areas until all of the larger groups are completed.

When the large groups are enrolled, we are faced with the problem of the small employer or the self-employed. Here, we often have to use ingenuity. We have enrolled such groups as the bakers' and butchers' associations, county or component medical societies, dental associations, business block groups, civic associations, community groups, cooperatives and bar association groups. (*Men of the bar, not at the bar!*)

We have worked out a plan for all the druggists of the state through the Minnesota State Pharmaceutical Association, whose secretary acts as group treasurer and whose office is the clearing house for the Blue Cross subscribers.

Community groups, of which we have about 70, are typical of these odd groups. Enrollment is open to those in downtown places of business too small to form their own groups. Mass meetings are held at which the chart talk is given and one of our movies is shown. A responsible individual in the group is selected as group leader. He disseminates further information about the plan (so he must, of course, be thoroughly informed), collects applications and payments, and submits the group's applications and payments to the M.H.S.A. office when the quota is achieved. We ask 50 per cent of all those eligible to sign application cards before the group is accepted. The minimum for these groups is 10.

Contrary to our expectations of high utilization in these groups, utilization has been moderate. The Stillwater Association Group, with about 125 subscribers, shows a utilization of about 61 per cent after four years, a figure that is far below the utilization in many large metropolitan groups.

Probably the most serious problem of Blue Cross Plans contemplating state-wide

development is the enrollment of farmers. We found, during our first years of pioneering, that our conservative advisers were right. Farmers are independent thinkers. But farmers are shrewd buyers and are quick to take to something once its value has been proved.

Sometimes, now, someone asks us if we were ever discouraged in those early days before the plan "caught on." The answer, I think, is "no," for though the going was slower occasionally than we liked, the sight of a farmer carrying the broken, pain-wracked body of his small daughter into the hospital, his face creased with worry and anguish—worry, we knew, over the unexpected bills, anguish over his child's suffering—encouraged us to go on.

Farmers were successfully enrolled through banks (that is, the banks with which they did business and which were willing to cooperate), cooperatives, creameries, granges, farm bureaus, farmers' unions and other well-organized farmer-business organizations.

Our enrollment regulations are the same as for community groups. Enrollment is open to eligible males and to women gainfully employed in a downtown place of business or actually doing a man's work on the farm. A capable and responsible group leader is selected to act as the chairman of a "health and hospital" committee which sponsors the plan and fosters enrollment.

We hold group meetings with the farmers just as we do in other groups. When they get together for their PTA, grange, or farm bureau meetings, we bring our charts and our movies (which sometimes can't be used because of lack of electrical outlets), our literature, and application cards and set quickly to work.

It is often over the coffee and doughnuts—always the concluding number on farmer-organization programs—that the

last-minute, final touches are laid for the successful organization of these groups. Here the most effective and cooperative farm women are urged to take a hand in this health care program; the home and community chairman of the farm bureau is urged to give her support to lend impetus to the drive; the board members of the organization are given their final pep-talk.

After a festive evening, started perhaps with a talk on how to rid chicken coops of lice and tapered off with the mellowing influence of the farm children's voices in song and of a steaming cup of coffee, the spirit of cooperation and good-fellowship runs high.

That's the time for the Blue Cross representative to get in his best licks. Often, applications are signed then and there in sufficient quantity to complete the group. If they are not, the "health and hospital committee" is expected to complete the work.

We have frequently at county fairs run our movies constantly, hour after hour, for the peak crowds. Run in conjunction with Red Cross films, they often attract large crowds and arouse interest. A supply of Blue Cross literature is always left on a convenient near-by table.

After our first two years of pioneering, farmers and small town dwellers actually began asking for the service. The Minnesota Farm Bureau, an active organization with a large membership, began sponsoring the Blue Cross Plan among its farmer members and listed hospitalization benefits as "an added farm bureau service."

This arrangement has proved mutually helpful for many farmers have joined the Blue Cross through farm bureau groups; many have joined the farm bureau particularly to get this service.

About a year and a half ago, the farm bureau put one of its former county agents

exclusively on "drives." These include war bond, hospitalization, and farm bureau membership drives. This service has been of unquestioned value to the association. More recently, the grange, too, has sponsored Blue Cross service for its members.

Today some 30,000 to 35,000 farmer-subscribers are enrolled under the Blue Cross in Minnesota. About 20,000 of these are enrolled in farm bureau groups.

Because rural enrollment is more difficult, in general, than enrollment in urban areas, the state-wide representative must be versatile. He not only meets with the employers and employees but also has meetings with hospital boards, with county and component medical societies, with civic and service organizations.

Often the state plan representative writes his own publicity, obtains time from the local radio station for broadcasts, and frequently appears on the radio program himself. He asks the local movie house owner for permission to run Blue Cross movies in his theater. He is salesman, promoter, writer, publicity agent, good-will ambassador, and trouble-shooter. He must have tact, aggressiveness, ingenuity, pep, persistence, and patience.

In general, in state-wide enrollment, payments are made to the association by payroll deduction for town or village groups. If farmers enroll through banks, they authorize the bank to make periodic deductions from their checking or savings accounts to make fee payments. (Enrollment here is limited, of course, to the bank's farmer patrons. This has, surprisingly enough, frequently meant new accounts for the cooperating bank.)

In areas where farmers enroll through creameries or cooperatives, periodic deductions are made from cream or grain checks to pay hospitalization fees.

We ask that farmers enrolled through

the grange, farm bureau, or farmers' union pay fees on a quarterly, semiannual, or annual basis to facilitate the work of the "group leader" who remits for the unit. Most of these groups pay semiannually or annually. Both collections and enrollment in farmer-organization groups have been good.

To those who ask, "Does a state-wide plan pay?" I'd say, "Emphatically, yes." Not only in dividends because of a good

deed well done but because it actually proves a balance wheel for the association. At least it has in Minnesota.

It is the state-wide area that now contributes to the association's reserves. During 1942, state-wide utilization was 65 per cent; in the metropolitan areas it was so much higher that over-all utilization was 84 per cent. The constant infusion of new blood into the organization is a life-giving factor to the association.

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CHAPTER IV. HOSPITAL DEVELOPMENTS IN FOREIGN COUNTRIES

1. As Britain Looks at Health Service, by *Graham L. Davis**

THE *White Paper, A National Health Service*, presented to Parliament by the minister of health in February, is the latest in a long series of proposals for improving the health of the British. The Webbs made a report that hastened enactment of Lloyd George's National Health Insurance Act in 1913, which applies only to the employed worker and provides him with only the services of the general practitioner. That is as far as Britain has ever gone with compulsory health insurance.

The Consultative Council on Medical and Allied Services, appointed by the Minister of Health in 1919 soon after the ministry was established, recommended "the establishment of health authorities for local administration."

The British Medical Association in 1930—and again in 1938—published comprehensive proposals, and in 1942 issued a draft interim report. Medical Planning Research, an anonymous group of younger physicians, recently issued a report and so did the Society of Medical Officers of Health. Political and Economic Planning (P.E.P.) published its proposals in 1937. Then there is Sir William Beveridge's "cradle to the grave" social security proposal in 1942.

Lord Cave's voluntary hospitals committee, appointed by the minister of health, recommended in 1921 voluntary prepayment plans for hospital care and division of the nation into natural hospital areas. Voluntary prepayment plans, somewhat similar to our Blue Cross Plans, soon enrolled more than half the population in

England and Wales, so impressing Beveridge that he recommended compulsory health insurance for all medical and health services *except* hospital care.

The attempt to divide the nation into natural hospital areas and to organize hospital councils in each area met with indifferent success, but the voluntary hospitals commission, appointed by the British Hospitals Association under the chairmanship of Lord Sankey, in 1937 again proposed the same thing with hospitals classified within the area as central, district, and cottage.

Something happened this time, because Lord Nuffield, who made his fortune with the British counterpart of the Ford automobile, established the Nuffield Provincial Hospitals Trust with some six or seven million dollars to implement the recommendations of the Sankey Commission. The war stopped this activity temporarily, but about three years ago the Nuffield Trust and the British Hospitals Association decided to define hospital areas, organize councils in each area, and proceed to make studies of how existing facilities might be closely coordinated in a more effective hospital system and what additional facilities were needed. In some areas county and municipal hospitals cooperated, but in others they did not.

Pressure from the voluntary hospitals undoubtedly was one reason why the minister of health in October 1941 officially approved the project and designated the Nuffield Trust as his official representative

* Adapted from *Hospitals* 18:23-26, May 1944.

to gather the necessary data for postwar planning.

In this country, by comparison, the Committee on the Costs of Medical Care spent \$1,000,000 and five years producing reports and recommendations, which organized medicine promptly repudiated in large measure, and we have the Wagner-Murray-Dingell bill.

The British government approached "the medical profession, the voluntary hospitals, and the major local government authorities, from each of whom they wanted—on a proposal of this magnitude—to obtain all possible help and expert guidance from the outset. It was arranged that they should appoint representatives and that these groups should take part in general preliminary discussions.

"There would be a first stage, in which a preliminary exchange of ideas would be conducted informally and confidentially and without commitment on either side—to enable the ministers to get a general impression of the feeling of these representatives on some of the main issues involved and to help them to clear the ground.

"This second stage would be one of public discussion at which everybody—the public generally, for whom the service would be designed, the doctors and the hospitals and the local authorities and other organizations, and those men and women (including doctors) who are now engaged in the armed forces—would be able to discuss what was proposed and to voice their opinions about it. To assist in this the government would issue a White Paper.

"The third stage would then be one in which the government would settle what exact proposals they would submit in legislative form for the decision of Parliament. . . .

"The ministers offered to each group—

in memoranda and orally—a series of suggestions and ideas. They made it clear throughout that they welcomed criticism and alternative suggestions and were not at any stage confronting any of the groups with a predetermined scheme. Inevitably there was divergence of opinion on some of the issues.

"The White Paper does not purport to sum up the discussions or to reflect any agreement or represent any views reached."

Any organization of the health services that fits the needs of the British people could not be adapted without modification, if at all, to the health needs of this nation, because of the differences in customs, traditions, and social and economic conditions.

Britain is a comparatively small, compact, thickly populated island. This nation has many times the area, something like two and one-half times the population, and it is not so homogeneous, particularly with reference to the economic status of the people. Customs and traditions are quite different.

This proposed national health service heads up in the Ministry of Health, which in turn is responsible to Parliament. As advisors on professional and technical aspects of the service generally, the minister is to appoint the Central Health Services Council "to represent general and specialist medical practice, medical teaching, hospital organization and other professional interests." The function of this council is advisory, but the Central Medical Board, composed principally of physicians "to act under general direction of the minister," is an executive body. Its function is to establish a "general practitioner service . . . through which anyone who wishes to do so can associate himself with a family doctor of his own choosing and obtain the advice and treatment of that doctor at home or at

his personal consulting room or at a specially provided and equipped consulting room in a health center."

More about this health center later. But the backbone of the whole project and the administrative unit is the hospital area, as conceived and proposed by the Cave Committee and the Sankey Commission. The hospital councils organized by the Nuffield Trust, in cooperation with the British Hospitals Association, have representatives from the voluntary hospitals, the municipal hospitals, the governing authorities, farming and labor groups, and the general public. It is purely a voluntary body and has no legal authority to force an unwilling hospital to comply with the details of the hospital program for the area.

The "joint authority" proposed in the White Paper is "a combination of the existing county and county borough councils in the area." In other words, it is purely a governmental authority with no representation from the voluntary hospitals, but the voluntary hospital system is "to continue side by side with the publicly-provided hospitals; voluntary hospitals to participate, if willing to do so, as autonomous and contracting agencies; if so, to observe the approved area plan and to perform the services for which they contract under that plan, and to receive various service payments."

This joint authority is "charged with preparing an area plan for the health service as a whole, not only the hospital service," but it will be guided by the advice of a Local Health Service Council on which the voluntary hospitals and the medical profession will be represented. All existing hospitals and similar institutions, owned and operated by counties and municipalities within the area, will become the property of the joint authority and its "first task will be to assess in detail the hospital

needs of its area and the hospital resources available to its area.

"This it will do in close consultation with the local expert body, the Local Health Service Council. It is hoped that the hospital surveys, now nearing completion, will be of valuable help in this.

"The authority's next task, in consultation with the local expert body and other local interests (including the voluntary hospitals and, where appropriate, the medical schools) will be to work out a plan of hospital arrangements for its area, based on using, adapting and, where necessary, supplementing existing resources.

"The object of the plan will be to arrive at the right quantities, kinds and distribution of hospital facilities for the area; to settle where, how, and by what hospitals each branch of hospital treatment can best be secured; to produce a balanced scheme in which all the necessary specialist facilities in medicine and surgery (including fracture and orthopaedic, gynaecological, paediatric, ophthalmic, psychiatric and others) are provided in due proportion, together with general accommodation for cases, acute or chronic, of the ordinary type.

"The plan must ensure that the various special treatments are concentrated in centers competent and convenient to provide them, and not dispersed haphazard in uneconomic and overlapping units; that proper linking of services is secured by relating the work of special and general hospitals; that arrangements are at hand for the transfer of patients to the hospitals best suited to their medical needs; and that the skill of the consultant staffs of the various hospitals taking part can be used to the maximum advantage of the area as a whole.

"It will be the aim of the authority to make its area (which will have been deter-

mined with this in view) as self-sufficient as possible in hospital and consultant services. But where it is obviously more sensible, as in some of the rarer services, the plan will provide for certain services by agreed arrangements outside the area."

The general practitioner is provided at the national level by the Central Medical Board, but the specialist is to be "made available to all, at the hospitals, local center or clinics, or in the home, as required; to be based on the hospital service, and arranged by the joint authority, either directly or by contract with voluntary hospitals. . . . Measures for improving the distribution of consultants, dealing with methods of appointment and remuneration and relating this to other branches of the new service generally" are being considered by a committee of which Sir William Goodenough, executive director of the Nuffield Trust, is chairman.

But it is proposed that the consulting specialists are to be "remunerated in part (usually by part-time or whole-time salary) by the particular hospital or hospitals with which they are associated under the area plan; standards of remuneration to be centrally settled in consultation with the profession." In Britain medical practice in hospitals, both voluntary and governmental, is limited largely to specialists.

While the joint authority has authority to plan for all health services in the area, including public health, hospital, consultant, general practitioner, dentistry, nursing, and the like, it does not operate all of these services. Each county and county borough council within the area retains responsibility for public health activities in general and "for local clinic and domiciliary services not belonging to the hospital and consultants' sphere." Responsibility for child health and welfare remains with the school authorities.

Considerable space is given in the White Paper to the health center idea, a project which apparently has the full support of the British Medical Association.

"The design should provide for individual consulting-rooms, for reception and waiting-rooms, for simple laboratory work, for nursing and secretarial staff, telephone services and other accessories, as well as—in varying degree according to circumstances—recovery and rest rooms, dark rooms, facilities for minor surgery, and other ancillaries.

"The object will be to provide the doctors with first-class premises and equipment and assistance and so give them the best facilities for meeting their patients' needs. The doctors will thus be freed from the necessity to provide these things at their own cost, and there will be new scope for the young doctor, fresh from hospital training, to take his share in the center as an assistant to the practitioners engaged there, and then, later on, to be eligible for full participation."

LOCALITY PROVIDES CENTER

These centers would be provided by the county or county borough council. Apparently no patients are kept overnight and the British do not like the idea of having the center as a part of the local hospital. Of course there are places that need a health center where a hospital is not needed. Applying the idea to more sparsely settled rural America, it would seem logical to make the health center a part of the local hospital, where there is a hospital in the community.

To duplicate the rather expensive laboratory and x-ray facilities and services in the average American town of 5,000 to 15,000 population—in a county of from

25,000 to 60,000—would increase the cost to the community and decrease the quality. The absence of these diagnostic services, under direction of specialists in radiology and pathology, is perhaps the most important weakness in rural hospital and medical practice now. Consolidation of the county health department and the offices of physicians and dentists with the hospital in the county seat would create a real health center that would provide the area it serves with a coordinated health program.

Sometimes in the more sparsely settled areas a population center of 1,000 to 3,000 or 4,000 people will be found with three to six or seven physicians twenty to forty miles away from the hospital in the county seat. Frequently the need for some sort of hospital facilities is expressed in an old house converted to hospital purposes.

A health center type of institution is indicated here with ten to twenty beds for normal obstetrics, emergency surgery, and certain types of medical cases, the diagnostic facilities, and the offices of the physicians and dentists, but to give the community a high quality of hospital service at a reasonable cost it would be necessary to relate it for administrative purposes to the nearest general hospital.

This hospital in turn should be linked up with the nearest large city hospital for consultants in the various specialties, such as radiology, pathology, obstetrics, surgery, gynecology, pediatrics, and neurology. When that happens a hospital area has been created and the need for an area hospital council is indicated to coordinate hospital activities. That is the British idea which could be copied to advantage in this country.

Some such recommendation as this may come from the national study of hospitals now being organized by the American Hospital Association. The need for such a study is clearly indicated when one looks from a detached viewpoint at the present lack of coordination of hospital activities.

A national hospital program is what this nation needs. At the end of the war large sums will be spent on the improvement of hospital facilities and under present conditions much of it will not be spent to the best advantage.

Payment for this British national health service will become a part of a comprehensive social security program that will be a combination of local tax funds, contributions from employers and employees, private philanthropy, and tax funds at the national level.

2. Postwar British Medicine, by Sir Frederick Menzies, K.B.E., M.D.*

DESPITE the grim realities of war it is astonishing how deeply interested the people of Great Britain are in the problems which they know must arise in connection with postwar reconstruction. This fact must not be construed as any indication that the people of this country are not acutely alive to the extreme gravity of the war situation or the tremendous and vital issues at stake. Nothing could be further from the fact.

It is interesting to note *en passant* that

exactly the same phenomenon was apparent during the very worst period of the War of 1914-1918, and that in the midst of it, the government established a Ministry of Reconstruction to consider and make recommendations affecting postwar problems of reconstruction. The Ministry did in fact produce some exceedingly able reports of

* Adapted from *Medical Care* 2:337-346, Nov. 1942.

which quite the most interesting and valuable from the point of view of social welfare was one dealing with the "Reform of the Poor Law." From this particular report there emanated later the Local Government Act, 1929, whereby all the duties of the Poor Law Guardians, which had been in existence since the days of Queen Elizabeth, were transferred to County Councils and County Boroughs, thus finally settling a problem which had been the subject of acute controversy for many years before. Incidentally it may now be added that twelve years of experience of the Local Government Act, 1929, has proved beyond all doubt the wisdom of the recommendations made by the Ministry of Reconstruction in its Report on the Poor Law.

There are some of us who believe that war does not so much create new problems as that it brings to the forefront many problems which for long have been in the stage of incubation. Those of us who were actively engaged in public work during and after the War of 1914-1918 are therefore neither surprised nor alarmed to find a considerable amount of interest and discussion going on now with regard to problems of postwar reconstruction which will have to be dealt with after this, the greatest of wars in history. Incidentally it may be remarked that the very fact that such subjects can be discussed dispassionately at such a time is clear evidence that there is no lack of morale and certainly no lack of determination and resolve to win the war.

It is necessary to appreciate and understand this background in order to avoid misunderstandings and misgivings with regard to the British people and their attitude to the war.

In the medical profession it is a fact that for many years a considerable amount of quiet discussion has been going on with regard to such matters as:

1. The defects of the National Health Insurance Act of 1911.
2. The increasing difficulty in maintaining a high standard of efficiency in the voluntary hospitals.
3. The immense improvements in the status and efficiency of the municipal hospitals during the period 1930-1939.
4. The enormous growth since the year 1919 of public health services¹ and the relationship of all these public health services to the family doctor, and finally,
5. The growing difficulties of the family doctor or "general practitioner." For him the National Health Insurance Act has made inadequate provision for consultant and specialist assistance, laboratory and x-ray facilities. It is also of vital importance to provide him with opportunities for postgraduate study, refresher courses, and, last but not least, with reasonable leisure in the midst of his heavy burden of work.

From the point of view of the community generally, for a long while past there has been a strong feeling of real need for a comprehensive medical service aiming to promote health, prevent disease, and relieve suffering. It is felt that such a service should be readily available to every member of the community, unhampered by either economic considerations or geographical limitations.

During the last century the Government, private philanthropy, and personal initiative have succeeded between them in creating a confusion of unrelated medical services which have no coherent system. Thus hospitals, for example, of all sizes and all kinds have sprung up here and there throughout the whole country without any kind of a relationship to a clearly thought-

¹ E.g., tuberculosis, maternity and child welfare, venereal diseases, the school medical and nursing organization, and certain highly specialized services, such as orthopedics, rheumatism, puerperal fever, ophthalmia neonatorum, mental health.

out plan. Similarly, hospital treatment may be in voluntary hospitals financed by charity or by small voluntary contributions from patients, or by both. Municipal hospitals, on the other hand, are financed out of rates and taxes.² All medical school hospitals are voluntary hospitals with the exception of the British Postgraduate Medical School and Hospital, Hammersmith, London. The Medical School of this institution is financed by the State, the Hospital by the London County Council.

There are over 1,000 voluntary hospitals in Great Britain with a total accommodation of approximately 100,000 beds. The average size of the voluntary hospital is small. The majority have less than 100 beds. The total income of all these hospitals is about £16,000,000 per annum. The total expenditure is rather less, but, despite this fact, the majority show an annual deficit, and those which do not, only succeed in doing so by cutting down the expenditure necessary to maintain efficiency.

There is a growing realization of the fact that the voluntary hospitals of this country cannot maintain the high standard of efficiency necessary to carry out their duties properly unless they receive substantial financial support from state and municipal funds. This fact was common knowledge long before 1939. The outbreak of this war has put the matter beyond any possible doubt by reason of the inevitable decline in voluntary contributions, owing to the tremendously high level of taxation, increased costs of all kinds, and the growing dislike, especially of the younger generation, to the treatment of sickness being in any way dependent upon charity. The views of the youth of Great Britain on this point are extraordinarily strong and are not related in any way to the grade of society to which they belong. They have no use at all for the upholders of tradition,

and "all the rest of it," in so far as the treatment of the sick is concerned.

Apart altogether from the overwhelming influences of the factors referred to above, there is no doubt that the voluntary hospitals themselves are guilty of having committed partial suicide through their own failure to realize the signs of the times. For example, they have erred foolishly in upholding to an extreme limit their individuality, their independence, their contempt for the public health organizations, their refusal either to cooperate among themselves or with the health authorities, State and Municipal; and now when it is too late their death-bed repentance is not evoking much sympathy from the State or the Municipality.

As already stated, municipal hospitals are financed by rates and taxes and are under the control and management of the County Councils and County Boroughs. There are at least 300,000 beds in these hospitals and they are fairly uniformly distributed geographically throughout the country because they were originally provided by the Guardians of the Poor for definite Poor Law Districts. When they were taken over in 1930 they were a "very mixed bag," some good, many more bad, and the remainder indifferent. Since then the County Councils and County Boroughs have taken a real pride in their newly acquired hospital responsibilities and in the great majority of hospitals they have spent money wisely and generously with the result that immense improvements were carried out during the ten years prior to the outbreak of war. Indeed it is not an exaggeration to state that if war had not broken out in 1939, within another five years the best of the municipal hospitals

² For the benefit of American readers, "rates" mean taxes by local governments, chiefly on property; "taxes" mean national taxation.

would have equalled, if not indeed excelled, the best of the voluntary hospitals in all such vital matters as buildings, equipment, staff, and conditions of service.

For the reasons given above it is not surprising that a very strong feeling had grown up before the war, that the time was ripe for the merging of all voluntary and municipal hospitals into a unified hospital service for the country generally. The war has certainly given a tremendous impetus to this movement and now it is becoming a commonplace and generally accepted policy. The real problem is, of course, how such a merger is to be carried out to the best advantage of the community.

Briefly, it is certain that the Government has accepted the principle of merger of the two hospital organizations into a unified hospital organization, and the obligation to finance the new scheme by direct financial grants to all hospitals willing to enter the scheme.

The arrangement which seems to find most favour at the moment is to divide the whole country up into fifteen regional areas and to appoint a Regional Council for each area, composed of lay and medical representatives of the Ministry of Health, local authorities, and the voluntary hospital boards of the area. The number of chosen representatives on each Regional Council would be equal in numbers for each one of the three bodies concerned, viz., Ministry of Health, local authorities, and voluntary hospitals. The outstanding subject upon which there is no agreement as yet is whether the Regional Council should be advisory or executive. The subject is too difficult to discuss in a brief article. It must suffice for the writer to express the emphatic opinion that unless the Regional Council is given considerable and comprehensive executive and financial powers over all the hospitals in the regional area, sub-

ject of course to the policy laid down by the Government for the country as a whole, the regional scheme will never function efficiently. Such a scheme would not preclude the Regional Council from delegating, by a judicious policy of decentralization, considerable responsibility for management to each local hospital committee. In fact, the best and safest way would be to delegate as much detailed management as possible to each local hospital. In general, regional responsibility would be amply safeguarded by the powers of executive and financial control exercised by the Regional Council. It goes without saying that each Regional Council would have to be supplied with office accommodations, competent medical and lay staff, etc., in order to carry out its duties and responsibilities.

The first step toward making a regional organization practicable is to divide the whole country up into certain provisional geographical areas. The second step is to carry out a careful survey in each area of all the various facilities available for hospital and auxiliary medical services. Having drawn up a schedule with all the necessary information, it would then be possible to determine whether the facilities available are adequate or deficient in certain respects and to build up a provisional scheme of organization and mergers for that area. At the same time, the scheme for each area will no doubt be considered in conjunction with the conditions obtaining in adjoining areas and it may well be that for certain highly specialized purposes, such as radium treatment, plastic surgery, orthopedics, etc., it will be desirable to consider proposals which would involve two or more adjoining areas.

At the moment, preliminary steps for a detailed survey of this kind are actually in operation in two of the provisional regional areas: (1) London and the adjoining coun-

ties of Middlesex, Surrey, Kent, Hertfordshire, and Essex; (2) Lancashire, Cheshire, and North Wales. In both instances the survey is being carried out by two whole-time medical men with considerable hospital and public health experience. One of the two medical commissioners has been chosen from the Voluntary Hospitals Organization, the other from the Municipal Hospital Service. In due course they will submit a report with recommendations to the Ministry of Health. It is not anticipated that the survey in these two instances will take less than one year's hard work. In the meantime arrangements are being made to appoint medical commissioners for other provisional regional areas. A good deal of spade work is also being carried out quietly by such bodies as the County Councils Association, County Boroughs Association, the Nuffield Provincial Hospitals Trust, and representatives of voluntary hospitals, upon such difficult and delicate problems as the constitution, mode of election, duties, responsibilities, financial arrangements, and staffing of the Regional Councils.

Unless, therefore, one reads the signs of the times incorrectly, it would seem certain that one of the features of postwar reconstruction will be the disappearance of the dual hospital system which has prevailed hitherto and its replacement by a unified hospital organization for the whole country, based upon regional areas, and carrying out a national hospital policy under the control and supervision of the Ministry of Health.

The most obviously debatable subject at present is the future development of the National Health Insurance Act of 1911 and the repercussions of such development upon the medical profession as a whole. When this Act was introduced by Mr. Lloyd George in 1911 it met with tremendous opposition both from general public opinion and from

the great majority of the medical profession. There was a fight of real gravity. The most striking proof of the success of the Act has been its continuous expansion. Originally it was expected that about 12,000,000 people would be entitled to its benefits, but by 1922 the number exceeded 15,000,000 and today the figure is nearer 21,000,000. Two great additions were made by reducing the age limit for insured persons from sixteen to fourteen years of age, and by raising the income limit of non-manual workers from £250 to £420 per annum. Whatever defects and deficiencies there may be in the scheme as it works today, it is very significant that the Medical Planning Commission, established a year ago by the British Medical Association, in its Interim Report issued in June 1942, states that "the scheme has stood the test of thirty years and has proved itself fundamentally sound, efficient and capable of development. . . . National Health Insurance has proved a greater success than was anticipated either by the supporters or by its opponents. Today it is an integral part of the whole social structure."

These are powerful arguments for the next step which is forecast by the Commission as a postwar development, viz. the extension of National Health Insurance to include the dependents of insured persons and possibly the raising of the income limit to £500 per annum. If this is done by the British Parliament, as is confidently predicted, it will result in fully 90 per cent of the population being brought within the scope of the extended Act. Moreover, there is an additional number of people already entitled to similar benefits by reason of the fact that their employers have contracted out of the Act on condition that their own insurance schemes provide benefits of free treatment and the like, no less favourable than those provided for insured persons by

the Act. If this group is added to the number of insured persons, then the proportion of the people affected will be nearer 94 to 95 per cent of the whole population.

It requires very little imagination to realize that this means to all intents and purposes that the vast majority of the medical profession in Great Britain, consultants, specialists, and general practitioners alike, will in fact become part of a State Medical Service, inasmuch as only the 5 to 6 per cent of the population outside the scope of the Act will be available for privately practising physicians. Moreover, it must be remembered that even that small proportion of the population will be severely impoverished by the heavy inroads made into their incomes by taxation, which has been far beyond anything experienced before the outbreak of this war and which will probably continue for many years after it is over.

In this connection, the already announced hospital policy of the Government should be carefully borne in mind. It is indicated that financial grants will be made directly to all hospitals included in the hospital unification scheme. Such a policy, coupled with the extension of the National Health Insurance Act to 94 per cent of the population, will necessarily bring about the most profound changes imaginable in the orientation of the medical profession vis à vis both hospital and home medical services. This fact is fully realized by everyone now. It has been the subject of prolonged and careful consideration by the Medical Planning Commission. In its Interim Report the Commission offers certain proposals to meet the new situation which will arise if these schemes are translated into practice by government legislation. This report is now being considered by the whole medical profession,

in advance of the final report to be issued toward the end of this year.

Apart from purely medical matters, the Commission's Report includes numerous other important proposals affecting the extended National Health Insurance Act, such as substantial increases in maternity and sickness benefits, etc., which space will permit me only to mention. There are many other schemes for social welfare already in operation, such as unemployment insurance, workmen's accident compensation, old age pensions, widows and orphans allowances, war disability pensions, and public assistance generally. It is of particular interest that the Government has set up a special committee, called the "Beveridge Committee," to consider all social welfare schemes, in detail and as a whole, and to make a comprehensive report upon them with recommendations for future legislation. The Beveridge Committee may well take the view that the time is ripe for all these social welfare plans, including national health insurance, to be welded together into one great national insurance scheme. There are very good reasons for the belief that such a unified comprehensive national scheme would prove in time to be much the most efficient as well as the most economical method of dealing with the whole problem of social welfare and security. In the meantime it is anticipated that the Beveridge Committee report will be completed and presented to the Government before the end of this year. Its publication is awaited with intense interest.

Within the very narrow limits of a few thousand words it will be obvious that it is only possible to paint in broad strokes a picture of the immensely important subjects outlined above. It will however be possible to see that the outstanding features of postwar reconstruction referred to include the following:

1. The certainty that the voluntary hospital organization in this country is rapidly approaching its demise after two hundred years of magnificent pioneer work, and that it will probably be incorporated with the Municipal Hospital Service in a unified National Hospital Service.
2. That the National Health Insurance Act of 1911 will probably be extended after the war so as to include 94 per cent of the whole population within

- its scope, and that if it is so extended the practical effect upon the medical profession in this country will be to convert it into a State Medical Service.
3. It may be added that no sane man or woman thinks these enormous changes will take less than twenty-five years to bring to complete fruition from the date when legislation comes into effect. This country does not proceed by revolutionary methods, but by evolution, slow but sure.

3. Australia's Government Is Working toward Hospitalization That Is Free, *by Senator the Honorable James M. Fraser**

MORE than thirty years ago a distinguished American doctor said that public health was purchasable and that, within natural limitations, any community could determine its own death rate.

A familiar political maxim is that efficient government is only possible with the consent of the governed.

The Australian government has signed the Atlantic Charter and has thus guaranteed to its own people freedom from fear and freedom from want.

These are the three sides of the triangular base on which is being built the health policy of the Labor government of the Commonwealth of Australia.

The statement that, by the expenditure of money, sickness can be prevented, death postponed, and a community made healthy is, of course, fallacious if pressed too far. But it is true—and universally recognized—that medical science has become increasingly reliant upon technical aids and has become so subdivided into sharply defined specialties that more institutions and more expensive equipment are necessary if the community is to receive an adequate medical service.

The principle that the cooperation of the individual and of the community is necessary is evident enough when stated, but

does not become really clear until the administrative system begins to apply it in practice.

Before any system can be effective, the public must have confidence, and that confidence must be based upon two convictions: that the system is wisely planned and efficiently operated, and that no person or group of persons has any motive or opportunity for gain or profit out of the system.

The third great principle—that it is the duty of any government to guarantee its people freedom from want, freedom from fear, and freedom from the fear of want—is now seriously engaging the attention of all governments. In Australia the government, of which I am a member, has already begun a series of steps which will be followed steadily until the last step has been taken.

Man has an individual and a collective fear: his fear of sickness and helplessness is for himself and those whom he loves.

* Adapted from *Hospitals* 18:62-65, Oct. 1944. Senator Fraser is Minister for Health and Minister for Social Services, Commonwealth of Australia. The rates of payment given under the headings *Child Endowment*, *Maternity Allowance*, and *Invalid Pensions* and the ratio of medical practitioners to the population have been brought up to date as of March, 1948.

This applies to all, but presses especially heavily on the man with a small income. He is afraid that sickness will come upon him or his family and that he will not be able to earn if he is ill, or cannot meet the hospital and medical expenses for his wife or children.

The fear of want and fear itself are one. This fear lives with him as a daily companion till the moment comes when he, like Job, must cry, "The thing which I greatly feared is come upon me."

daily domestic life of every individual as does a scheme of medical service.

This accord is already assured by two councils. The first is the National Health and Medical Research Council, which includes Commonwealth and state health executives, delegates from the colleges of surgeons and physicians, from the British Medical Association in Australia, and from the universities. The second is the Council of Commonwealth and State Ministers of State for Health. Each of these councils

HOSPITAL PROVISION IN AUSTRALIA

State	Population	Public and subsidized hospitals	Private hospitals	Total hospitals	Beds per 1,000 population*
New South Wales	2,822,000	210	448	658	7.9
Victoria	1,964,000	81	338	419	7.5
Queensland	1,030,000	117	149	266	8.7
South Australia	606,000	53	121	174	7.9
Western Australia	465,000	83	60	143	9.6
Tasmania	240,000	22	49	71	8.7
Australian Capital Territory	12,000	1	1	2	17.6
Northern Territory	9,000	4	-	4	14.6
Totals	7,148,000	571	1,166	1,737	8.0

* Excluding institutions for tuberculosis and mental diseases.

The scheme outlined in this article is designed to remove this fear.

As in the United States, much federal activity in the public health field has taken place with the aid of government funds.

While action has been taken under full federal powers in respect of pensions, it is probable that some action will be taken under the financial powers just indicated and those possessed generally by the Commonwealth government.

But, in the very nature of things as they are, full accord and cooperation between the Commonwealth and state governments is essential for the successful development of any scheme which touches so nearly the

meets twice yearly and both are valuable agencies for securing harmony.

In Australia a very well-organized and widely dispersed system of hospitals has been developed. It can truly be said that there is no community in this country which has not reasonably easy access to a hospital. Many of these hospitals in the more remote parts of the continent are small, but even though they are small in size they provide a good service (see table).

In addition to the actual bed treatment indicated by the figures in the table, the amount of outpatient treatment is shown by the annual figures: persons, 1,276,000; attendances, 4,159,000.

All hospitals, both public and private, indicated in the table are under close and continuous control by a well-developed central hospital authority in each state. This authority is invested with full legal powers.

While it is true that Australia is supplied with a good and well-distributed hospital system, it is equally true that the system is not good enough. There is a lack of balance; in the large cities the number of hospital beds is too small, and, in some of the rural district hospitals the full number of beds is not always required.

But it is principally in respect of special equipment that the defects are noticeable in the rural hospitals. A great number of these hospitals are small and the community is not large enough to carry the expense of the necessary diagnostic and therapeutic equipment which modern medical science demands.

While a proportion over the whole continent of one doctor to every 1,062 persons is good average medical service so far as numbers alone are considered, there are certain defects in the present distribution which are well recognized.

The distribution is uneven. There is a natural tendency for doctors to congregate where the money is and this means that the industrial, and some of the poorer rural areas, are not as well served medically as they should be.

The other serious defect is that, away from the large cities, specialist services are, over the whole extent of the continent, almost nonexistent.

All public and subsidized hospitals in Australia work under a law which states that every person shall pay for hospital services "according to his means" up to the actual cost to the hospital of the services he has received.

The medical system is the time-honored

one which ranges from the charitable free medical service for the poor without any charge, to fees to the wealthy patients according to "what the traffic will stand."

A system has grown up in Australia of societies, known generally as "Friendly Societies," which, for an annual membership fee, guarantee medical service to each member on a contract basis with a doctor. But this service (a) does not include certain forms of medical service; (b) is limited to persons in receipt of less than a stated annual income. It is generally conceded that this "Friendly Society" method is not the best form of medical practice.

The principal defects in the present form of general medical practice are:

1. The doctor is on call twenty-four hours a day, seven days a week.

2. The doctor is expected to attend the poor without fee, and cheerfully does so, but there is a strong and universal feeling in Australia that no profession should be expected, as a matter of course, to do either of these things.

3. The great middle class is denied even the benefit of joining a Friendly Society but cannot, on the other hand, hope to meet the ever increasing cost of medical service with the constantly growing demand for specialist advice.

The legislation which will now be described is a specific response to an urgent and universal demand for reform.

In this country the people are well informed and intelligently vocal. In all fields of social endeavor, therefore, two currents can be identified—the popular and the professional. Generally these run smoothly together, but sometimes they cross, with results of varying degrees of turbulence. An interesting example of these currents has been seen in the evolution, on the one hand, of infant welfare centers almost entirely developed as a result of impulse by

the mothers of the community and with very little assistance from the practicing medical profession; and on the other, of the school medical services which were largely the result of strong representations by the medical profession.

It is not intended in this article to discuss the official "health" services in any detail. It will be necessary to refer to them in relation to the general scheme, but otherwise the subject is too broad to discuss here.

Certain legislation which affects the general economic status of the community, and so makes its contribution to the general scheme of provision against want and consequent ill-health, will be briefly indicated.

Basic Wage. Throughout Australia this principle has been adopted. The basic wage is defined as the lowest range which can be paid to an unskilled labourer on the basis of the normal needs of an average employee regarded as a human being living in a civilized community. The basic wage is fixed by tribunals in the different states and is varied from time to time according to changes in the cost of living, constitution of the family unit, and other factors.

Child Endowment. The Commonwealth government pays to the parent Child Endowment at the rate of seven shillings and sixpence a week for each child (except the first) under sixteen years of age. This endowment is available for all families in Australia without regard to the financial status of the family.

Maternity Allowance. A universal scheme provides for the payment of a special allowance to the mother of a child. The amount payable in respect of Maternity Allowance is as follows:

- £15 where there are no other children
- £16 where there are one or two other children

£17/10/- where there are three or more other children

Where more than one child is born at a birth, the amount of the Maternity Allowance which would otherwise have been payable is increased by £5 in respect of each additional child born at that birth. This maternity allowance is available to all mothers whatever their economic or financial status.

The above economic aids relate to healthy persons, but it is obvious that they must play an important part in ensuring the "freedom from fear" which is our constant desire throughout.

All authorities agree that the incidence of many diseases has a close correlation with low economic level, and it is obvious therefore that, in proportion as we reduce economic disabilities, we reduce the probability of illness.

The legislation which has a more direct relationship to diseased or disabled states will now be described.

Workmen's Compensation. In accordance with the practice now established in many countries, compensation legislation is in force throughout Australia. Workmen are legally entitled to financial compensation for injuries arising out of, or in course of, their employment. This compensation is payable in respect also of certain specified illnesses.

Invalid Pensions. Provision is made for the payment of an invalid pension at the rate of 37 shillings a week to a person over sixteen years who is permanently and totally incapacitated for work. The term "total incapacity" is taken to imply incapacity of at least 85 per cent in relation to a normal healthy person.

Allowances of 20 shillings a week for the wife of an invalid pensioner and 5 shillings for one child under sixteen years are pay-

able in addition to the pension. The payments are subject to the exercise of property and income tests and continue during the period of the invalidity.

Unemployment and Sickness Benefit. Provision for sustenance during periods of unemployment or of temporary incapacity during sickness is made in a law recently passed by Parliament. In such cases the breadwinner receives 25 shillings a week and his wife receives one pound. A further five shillings a week is payable in respect of one child under sixteen years of age. The payment will continue in cases of illness (subject to a waiting period of seven days at the beginning of the illness) as long as the temporary incapacity persists, and will be subject to an income, but not a property, test.

A law has just been passed providing that every person resident in Australia shall, without regard to his financial status, receive all medicines prescribed by a medical practitioner without any liability for payment by the person receiving the medicine.

The prescription, after being dispensed by the chemist, will be forwarded to the Department of Health, and payment will be made by the department to the chemist at rates which have already been fixed by agreement.

The department will issue a national formulary of prescriptions covering the whole range of scientific medical treatment recognized by the medical profession. Payment will be made only in respect of prescriptions within the formulary. Provision is also made for a limited range of dressings and "appliances"; the limits of this range have yet to be fixed.

Hospitals will probably not be required to furnish prescriptions; but, although no charge will be made to the patient, a system of payment to the hospitals, better

adapted to the conditions, will be adopted.

It must be apparent from what appears in the earlier part of this article that certain reforms are necessary, if medical service is to be provided which will be equitable for the doctor and efficient for the people.

It is intended, although this stage has not yet been reached, that every person shall have the right to receive medical advice from a doctor whenever he is ill and without any cost to himself. This will apply in the case of every Australian citizen, including women and children, and will not be limited by any consideration of the financial status of the patient.

The scheme also will include the full range of specialist consultant services and of the specialized technical diagnostic aids. At present a committee of the Commonwealth parliament is examining the practical implications of this scheme.

It is universally recognized that, in the areas of scattered settlement, a greatly improved medical service is urgently necessary. At the present stage, there is full agreement—in which the medical profession shares—that this service shall be provided for the remote and scattered rural areas upon either a full-salary or subsidy basis. For all other areas the question whether payment to the doctor shall be upon a full-salary or fee-for-service basis is not yet settled.

Concerning hospitals, there are some points on which there is general agreement. These are:

1. That almost all the hospitals in Australia are capable of some improvement in buildings, equipment, and, more especially, in technical aids to diagnosis and treatment.

2. That, for efficient service, the whole hospital system must be regionalized. As it is not possible to equip all the small rural hospitals with expensive equipment,

the "base hospital" system is necessary, so that the small hospitals can refer cases needing special services to the larger base hospitals equipped to give those services.

Another suggested reform commands less universal agreement. This is the proposal that, in each of the larger cities, there should be a chain of "consultation centers" within easy access by persons living in the more congested residential areas. These centers are to be equipped with all diagnostic services and such therapeutic equipment as can be used under outpatient conditions.

One leading medical authority, who has given special attention to this subject, summarizes the advantages of these decentralized clinics thus:

1. The present outpatient clinics at hospitals are grossly overcrowded and patients have to wait long periods. Decentralization of the outpatient clinics would improve this position very materially.

2. Decentralized clinics would be the means of returning hospital outpatients to the care of the general practitioner—a course that has often been advocated.

3. All patients attending outpatient departments, at the large hospitals at least, are seen by a highly qualified specialist. This is a great economic waste of skilled medical attention.

4. The group clinics envisaged are, in effect, the group practice so frequently referred to by medical practitioners as being a most desirable development.

The question of payment for medical

services at these suggested clinics is—as part of the payment for medical services generally—still being discussed.

Whatever may be the outcome of these discussions, it is the intention of the government to (a) ensure a progressive improvement in the hospital services available to the people; (b) provide that every person ordinarily resident in Australia shall have full right of access to hospital services, whether as inpatient or outpatient, without any financial liability on his part.

These rights will not include intermediate or private ward accommodation in a community hospital providing these services. Complete understanding and co-operation between Commonwealth and state will therefore be essential.

It is intended that, as the system here described evolves, an organic unity of health and medical services will be achieved.

The government has declared as its financial policy that these reforms will be a charge on the income tax and will not be financed either by a specific tax or a contributory insurance scheme.

The reforms described in this article will be effected; they are not the speculative dreams of postwar reconstruction idealists. All, except the hospital and medical services, are now legally in existence. The government has built, and is building, an edifice of security which will move every Australian to say, again using the words of Job, that "he mocketh at fear and is not affrighted."

4. A Network of Hospitals Is Mexico's Immediate Goal, by *Gustavo Baz, M.D.**

DURING the three years of his government, the president of the Mexican Republic, General Manuel Avila Camacho, has been directing the different activities of the state toward the fundamental end of affording,

in every possible way, the greatest amount of welfare for his people. With that end in view, he has developed an intensive program of economic recovery and social re-

* Adapted from *Hospitals* 17:45-47, Oct. 1943.

habilitation based on a modern system, scientifically conceived and efficiently carried out.

Following this plan, the government of my country is building important highways on a large scale, greatly increasing the number of schools, providing ample systems of irrigation, and, in addition, is putting into practice all measures tending to complete the process of balancing the economic structure of the nation.

During these difficult and distressing times, the mind and the spirit of all people who are conscious of their responsibility, and every government that loves and values freedom and the other individual rights of man, must be utilized exclusively and to the fullest extent as a contribution to victory and the final triumph of justice over those who try to crush mankind under the yoke of degrading slavery.

I should like to speak to you of what the present government has accomplished in the field of public welfare, especially in regard to medical and hospital assistance.

Protection and help for the socially weak is afforded through the Department of Public Assistance. This organization has, in the last three years, patterned its action on precise philosophical and technical principles and has definitely established the fact that its activities, in this sense, constitute a public service and a duty that must not be avoided by the state. It has further held the view that society is entitled to demand the execution of such public service.

The efforts of this department have been chiefly directed toward maintaining the integrity of the family, abandoning any practices tending to its dissolution, and making it the center of all activities of social assistance, thus readapting and reincorporating its members into society, giving them not the blind, momentary, thoughtless help of

humiliating almsgiving, but help conforming to the modern technique of assistance—aid only in relation to their incapacity. We are thus discarding old and inadequate systems.

Consequently, in the Mexican Republic, we have modernized the methods of social welfare for children and the socially weak, such as the mentally defective, the blind, and the deaf mutes.

The government of my country is deeply conscious of the urgent and growing necessity of providing its people with medical care. Geographical and climatic characteristics of Mexico contribute to the inherent problems of epidemic and endemic diseases such as malaria, intestinal parasitism, and other grave maladies such as onchocercosis. These constitute, in some zones of the country, a major source of physical impairment of the inhabitants and economic instability.

The Department of Welfare, within its scope of activities, is doing everything possible to solve this problem, principally by means of a program of construction of modern hospitals—building a complete network of them throughout the country, since it is an undeniable fact that the old institutions are completely insufficient to meet the needs of the population and most of them are incapable of furnishing good medical service.

After long and careful technical study, the new hospitals have been designed by a group of architects and physicians who are specialists in this field. The European and American techniques were analyzed and used insofar as they could be applied to the conditions peculiar to our country.

Each unit has been studied as to its specific and individual purpose and in its relation to the community. The economic possibilities, the cultural and ethnical, physical and climatic characteristics have

been considered, taking full advantage of any favorable natural elements.

Natural sites have been selected. Sunshine, winds, and rainfall have been studied in the different parts of the country so that these may be fully utilized.

At the same time, the operation and methods of management within the hospitals have been simplified to the greatest possible degree which will still allow reasonable and adequate service to be rendered to the patients.

Adhering strictly to these rules and methods of planning, we have begun in Mexico, as I have said, a vast hospital construction program.

It is with deep satisfaction that we view the four large hospitals already finished, namely, the Children's Hospital of Mexico City with 600 beds; the Hospital of Monterrey with 500 beds; the Hospital for Chronic Patients in Repexpan with 750 beds, and the Hospital of Manzanillo with 150 beds.

Rapid progress is being made in the construction of six more hospitals in San Luis Potosí, Tuxtla Gutiérrez, Salvatierra, Puebla, Saltillo, and Tampico, as well as the Home for Mentally Defective Patients in León, the Maternity Homes of Chihuahua and Parral, and the Prenatal and Postnatal Clinic in Mexico City.

We have already begun the construction of eight more hospitals in Veracruz, Jalapa, Tuxpam, Cosamaloapan, Coatzacoalcos, Hermosillo, Mazatlán, and Tepic, and the Prenatal and Postnatal Clinic in Tacubaya. We are at present studying the plans and designs for eleven hospitals in Acapulco,

Tlaxcala, Tulancingo, Ometepepec, Mérida, Campeche, Guadalajara, Yahualica, Papantla, Monclova, and Colima.

In addition to this program of construction, I should like to speak especially of the monumental project which constitutes one of the greatest undertakings ever attempted by the Mexican Government—the great Medical Center of Mexico City. This is to be formed by twelve units, two of which are finished, the aforementioned Children's Hospital, already functioning, and the Institute of Cardiology, that will soon be opened.

Other units, like the Mundet Maternity Home and the Infectious Diseases Hospital, are now under construction. The plans and designs for the Central Hospital, the scientific center of this group of buildings, have already been completed and construction will probably soon be started. Plans for the City Emergency Hospital are also nearly finished.

To make such a project as this possible, it was necessary to concentrate in a single tremendous endeavor the efforts of a group of distinguished architects and physicians who had studied in Mexico and abroad to obtain the special education essential for the solution of these complex problems.

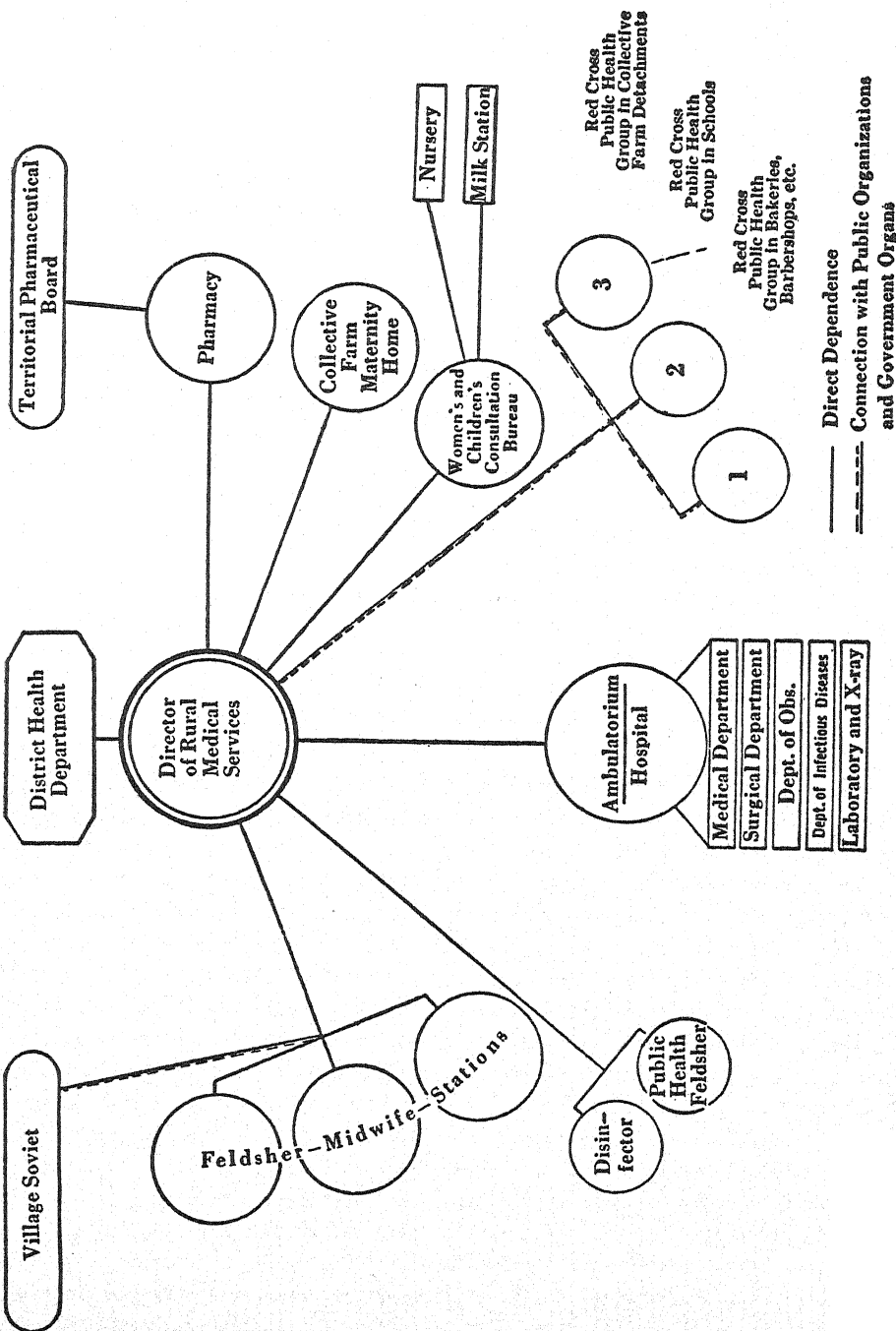
It is most gratifying to us that the foundations of the Mexican School of Hospital Architecture have been laid as the result of the enthusiasm and vigorous action of this valuable group of experts who, in three years of untiring activity and brilliant work, have created the new Mexican technique of hospital construction and operation.

5. Rural Health Services in the Soviet Union, *by Henry E. Sigerist, M.D.**

THE Soviet Union is primarily a rural country. In the north is a belt of marshy plains, the tundra, bordering the Arctic and

abounding in fur-bearing animals. Follow-

* Adapted from *Am. Rev. Soviet Med.* 1:270-280, Feb. 1944.



Model structure of a rural medical service outside the district seat

ing south is a forest belt that covers 50 per cent of the entire area of the country, a tremendous source of timber. The steppe belt, woodland in the northern part, grassland in the southern, provides rich agricultural soil. A desert and semi-desert grazing belt in the southeastern European and southwestern Asiatic part of the country is used for pastures and under irrigation may yield enormous areas of additional agricultural land. And finally, there is a subtropical belt where fruits grow in abundance, where cotton, tea, and tobacco are cultivated, where silkworms are raised.

This great country is inhabited by 190 million people of whom about 60 million live in cities and towns, about 130 million in rural districts. In other words, the great majority of the population is rural, and the provision of health services to this large group widely scattered over a large area has always been a very difficult problem.

Tsarist Russia was a country of great contrasts and contradictions. Despotically ruled, it had since the beginning of the nineteenth century a liberal and revolutionary movement that was at times strong enough to force far-reaching reforms.

Serfdom was abolished in 1861, and in 1864 the Zemstvo or local government was introduced as an attempt to decentralize a top-heavy administration. The Zemstvo was a district assembly elected by the inhabitants of the district, whereby the gentry, the bourgeoisie, and the peasantry each had one-third of the votes. The district Zemstvos elected delegates to the provincial Zemstvo. The administration of health and welfare activities was one of the functions of the Zemstvo, and the work was financed through a land tax whereby the peasants carried most of the burden.

Before 1864 rural medical services were either nonexistent or utterly inadequate.

Physicians were few. Small and primitive hospitals could be found in the district seats, larger ones in the provincial capitals. Hospital patients were mostly soldiers or convicts who were admitted free while peasants were charged fees that they could not pay. Whether serfs had any medical care or not depended entirely on the landlord. Most of the time they had to take care of themselves.

After 1864 the Zemstvos gradually took over from the provincial Boards of Welfare all existing medical facilities, hospitals, asylums, and dispensaries. Most of them were in very bad condition and had to be repaired. New hospitals and medical stations were built; physicians were appointed on salaries. They either toured their district, appearing in certain villages on definite days or, more frequently, were stationed in a village where they had a small hospital and dispensary to which patients came or were brought.

Zemstvo doctors constituted the Public Health Councils that advised the Zemstvos in all matters of health and carried out general public health functions, collecting vital statistics, fighting epidemics, etc. Beginning in 1871 they met in annual conventions to discuss problems of rural health. Many progressive doctors, men and women, were among them. Students frequently spent their vacations with the Zemstvos to help in vaccination campaigns.

Thus Russia eighty years ago was already building up a system of public medical services for its rural population, administered locally and financed through taxation. It was a new departure in medical care and was undoubtedly a step in the right direction. Sickness insurance, such as was introduced in Germany twenty years later, is no solution for a poor farm population which can only be helped through public services.

There was no charity involved because the people received the services as a right for which they paid through their contributions to the Zemstvo.

In 1913, 4,367 medical stations, staffed with a physician, were serving the rural population of Russia.¹ They were supplemented by 4,539 feldsher stations.² Rural hospitals included 49,087 general beds and 1,632 maternity beds. The facilities were anything but adequate for such a large population, particularly since the distribution was very uneven. In advanced provinces, such as the Moscow province, the medical stations were so located that they could be reached easily. Conditions were different in the thinly populated provinces of the periphery where the number of medical personnel and facilities was far from sufficient, and among the national minorities medical services were often altogether nonexistent.

The socialization of industry was a relatively easy task, but the collectivization of agriculture was infinitely more difficult because old customs and prejudices had to be overcome. The fact that the Soviet Union succeeded in solving this problem on a nationwide scale is one of its greatest achievements.

During the Revolution the peasants wanted land, and they received land, every household as much as it could cultivate. This obviously was a very primitive and unproductive type of agriculture. Collectivization was carried through during the first Five-Year Plan, not without difficulties. Today the Soviet Union has two basic types of farms, the *state farm* (sovkhoz) and the *collective farm* (kolkhoz).

The state farm is organized very much along industrial lines. It is usually a single-crop farm raising wheat, sugar beets, cotton, tobacco, tea, or similar products, or breeding cattle, sheep, hogs, or horses. The

state farmer has the same status as the industrial worker. He is a wage-earner and enjoys all benefits of social insurance. The highly mechanized state farm undoubtedly represents the most productive type of agriculture, but it is a solution which for obvious reasons could not be applied to the whole country. The great majority of all farmers, including about 20,000,000 households, are organized in collective farms that control about 99 per cent of the sown area.

The collective farm is a cooperative farm in which all basic means of production, land, livestock, implements, and farm buildings are the common property of the peasant households that constitute the kolkhoz, whereby each individual household owns as its private property its homestead, a patch of land, poultry, small stock, and a cow. The peasants live in villages that are administered by a village Soviet, a council of peasants' delegates elected by their fellow villagers, and the council in turn elects its executive committee. The collective farm is managed by a chairman and board elected by a general assembly of all collective farmers over eighteen, men and women.

Part of the crop is distributed among the farmers for their own consumption or for sale in the cooperative market. The major part of the crop is sold directly to state organizations, and of the money that thus comes in a small percentage is used for

¹ All figures quoted in this article unless otherwise mentioned are from G. A. Miterev, *The Protection of the People's Health in 25 Years of Soviet Power*, Moscow, People's Commissariat of Health, Medgiz, 1942. The charts (pp. 143, 147) are from *Organizatsia zdavookhranenia v Soyuze SSR (The Organization of Public Health in the U.S.S.R.)*, Moscow, People's Commissariat of Health, Central Institute of Health Instruction, 1942.

² The Russian *feldsher* is a medical assistant about whom we shall say more presently.

taxes, a small percentage (usually not more than 2) for administrative expenses; 12 to 20 per cent is set aside as an indivisible fund for capital expenditures, and the rest is distributed among the farmers and the rest of the farm personnel.

The collectivization of agriculture has greatly raised not only the material but also the cultural standard of the rural population. Schools, libraries, clubs, stadia have come to the village, and the kolkhoznik, the collective farmer, is an enlightened responsible citizen who takes a very active part in promoting the welfare of the community.

The task of providing health services to this large rural population scattered over one-sixth of the inhabited earth was a tremendous one. The medical stations of the old Zemstvo organization were a starting point. The problem, however, was not merely to increase their number but to improve their services; in other words, to create a totally new organization that would make the whole technology of modern medicine available to the farm population.

The task was relatively easy on the large state farms. On the grain farms in the neighborhood of Rostov-on-the-Don, groups of 8,000 people live in town-like communities where it is possible to have medical centers and hospitals similar to those in the cities. The major problem was with the collective farms.

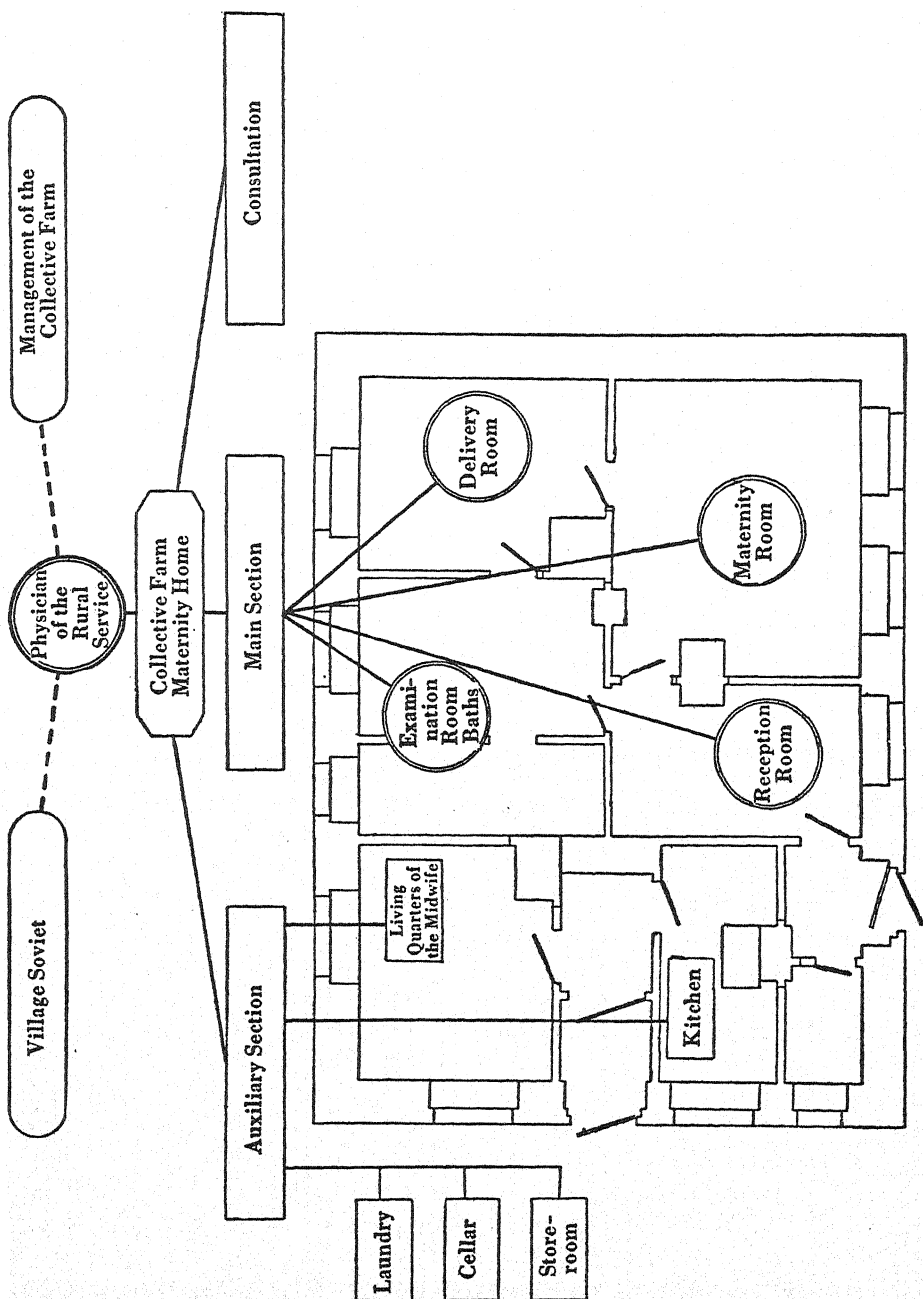
It was obviously impossible to erect complete medical centers with specialists in every collective farm, just as it was impossible to have every farm own all the tractors, combines, and other agricultural machines it needed. The latter problem was solved in such a way that Machine and Tractor Stations were built at strategic points. In 1937 the country had 6,319 such stations, each serving a certain number of

collective farms. The same principle was applied to the provision of health services, and health units were developed, again in strategic points of a district, each one providing medical services to the population of a certain number of collective farms. The organization of such a unit is illustrated in the accompanying chart.

The District Health Department is in charge of all medical services of the district, preventive, diagnostic, and curative, and the District Health Officer is responsible for the functioning of the services and for the health conditions of the population. It is his duty to visit several times every year all health institutions of his district.

Directly under and attached to the Health Department is a Director of Rural Medical Services who controls all branches of the unit. His most important institution is the Medical Center which in rural districts, as a rule, combines hospital and ambulatorium. It has a medical, a surgical, a maternity department, one for infectious diseases, and a clinical and x-ray laboratory. This represents a minimum requirement, and many centers have in addition dental departments or departments for the treatment of special diseases prevailing in the district. The size of the hospital varies according to the population served. The goal is to have about five beds for every 1,000 population. In some districts the goal has been reached, in others not. The Medical Center has an ambulance service and its ambulatorium, that is the outpatient department, sees patients at the office but also sends out physicians to the villages.

The special emphasis placed in the Soviet Union on the protection of mother and child has led to the establishment of separate institutions within the unit. One is the Women's and Children's Consultation



Model structure of a collective farm maternity home

Center staffed with a gynecologist and a pediatrician who also controls a milk station and the farm nurseries. The other is the small Maternity Home of the collective farm about which we shall say more presently.

The unit has a pharmacy that serves the people directly and also supplies the other branches of the unit with drugs. It is under the control of both the Medical Director and the Pharmaceutical Division of the Territory (Oblast). The latter sees to it that it is supplied with the drugs needed, in sufficient quantity, while the former supervises their distribution.

The unit, as we mentioned before, serves several collective farms. The Medical Center is located at a point that is easily accessible, but it is obvious that there must in addition be local facilities right in the village. These are the Medical Stations which as a rule are staffed not by physicians but by feldshers, nurses, and midwives. They are well-trained medical workers who are perfectly qualified to attend to the everyday ailments of the people. They are in constant touch with the doctors of the Medical Center who in turn come to the village stations at regular intervals.

Every collective farm has its Health Committee consisting of medical workers and farmers elected by their fellow-farmers. They meet regularly to discuss the health problems of the group and to ascertain whether progress has been achieved. They take an active part in drawing up the five-year health plan of the farm and aid the health authorities in carrying it out. On every farm there are, moreover, men and women trained by the Red Cross and holding Red Cross diplomas. They cooperate with the health authorities in supervising the sanitary conditions of the school, the bakery, the barber shop, and similar places.

Farmers themselves, they give first aid when accidents occur in the fields.

In addition to the personnel mentioned, the Medical Director has a disinfecter on his staff who is sent wherever his services are needed, and a feldsher trained in sanitary engineering whose function it is to help and guide the farmers in improving sanitary conditions.

Such a unit may serve a group of about 10,000 people. The number of units available in a district depends on the size and distribution of the population. The scheme is by no means rigid, but permits a great many variations. The visitor to the Soviet Union is always impressed by the elasticity of their institutions. The principles and the goal are always unmistakably clear, and in view of the vastness of the country and the magnitude of the task a certain standardization must take place. If, however, the goal can be reached in some other, some shorter way, there is, of course, no objection to it.

As an example I would like to mention the medical facilities of a middle-sized prosperous collective farm in the vicinity of Kharkov that I studied in 1938, the farm "Sto Pyat." It had a total population of 780 (including many children) and 4,200 acres of land, fields, and orchards. The farm had its own ten-grade school, a club with an excellent library, a nursery, a kindergarten, and a medical center. The medical center had a dispensary room and ten beds, an isolation room, a general ward, and a maternity ward. The staff consisted of one physician, one dentist, two midwives, and two nurses, a more than adequate staff for a group of 780. Since Kharkov could be reached easily, cases requiring specialized care or operation could be referred to a city institution and could be hospitalized there.

The case is by no means isolated. As soon as a collective farm prospers, it spends increasing amounts of its indivisible funds on the erection of cultural and health institutions and can afford to have a larger number of medical workers on its budget. It is the task of the District Health Department to enforce minimum standards everywhere, and if local budgets are inadequate, aid must be granted from the state budget.

Before the Revolution the number of women delivered in maternity homes was negligible. The Soviet health authorities made a great effort to provide more facilities, particularly during the second Five-Year Plan and, as a result, 75,612 maternity beds were available in cities in 1941 as compared with 5,192 in 1913. At the same time great attention was paid to conditions in rural districts and the increase of maternity beds in villages was even more impressive. From 1,632 in 1913 the number of maternity beds jumped to 66,261 in 1941.

Again the solution of the problem was relatively easy on the large state farms where conditions approximated those of urban communities. We also saw that the medical centers serving groups of collective farms had a maternity department. But this was not enough. Maternity care had to be brought right into the villages, had to be as close to the people as possible, and the solution adopted was the construction of small Collective Farm Maternity Homes.

It is a simple structure with four rooms, reception room, baths, delivery room, and maternity room. It has usually from two to five beds and is staffed with a competent midwife who lives in the building. The regulations foresee that the home must be located at a distance of approximately six to eight kilometers from the medical service to which it is attached so that the physi-

cian may be reached easily at any time. When a farm decides to build such a home it must contribute 75 per cent of the costs while 25 per cent are contributed from the state budget.

Simple as such a home is, it serves the purpose beautifully. When a farm woman is pregnant she goes regularly to the Women's and Children's Consultation Center for examination. If the pregnancy shows any abnormal symptoms she will be hospitalized in the medical center,³ but if everything is normal, she waits until the time comes and enters the Maternity Home of the farm. There she is delivered under good hygienic conditions by the midwife and if necessary by the doctor. There she spends a week removed from household duties, has competent care, and is instructed in the feeding and handling of the child.

Once she has left the Maternity Home she returns at regular intervals to the Women's and Children's Consultation Center where the child is examined by a pediatrician and a record is kept of his development. And if her work prevents her from taking care of the child and she has no family member that could substitute for her, the farm may have a nursery that will take the child in while the mother is at work.

The provision of nurseries to the farm population was a totally new development in Russia—and not in Russia alone. Village nurseries were nonexistent before the Revolution, while in 1941 permanent rural nurseries were taking care of 299,598 children of up to about three years of age. The need for permanent nurseries is obviously much smaller under rural conditions than among industrial city workers. During the long

³ The Medical Center also delivers those women whose farm has no Maternity Home of its own.

winter period most farm women have plenty of time for their children. The need, however, becomes very acute in the summer when farm work is at its height and every hand is needed in the fields. At such times the farms operate seasonal nurseries, and in 1941 provision had been made to take care of over four million children.

I remember an interview with the People's Commissar of Public Health of the Ukraine on a hot summer evening of 1938. I told him that in the United States we found it difficult to persuade well-trained young doctors to practice in rural districts and asked him what their experience had been. For a while he failed to see the point and did not understand why this should present a problem. He came from a farm family himself and said that the majority of the medical students of the Ukraine came from farms and studied with the intention of returning to the farms. As a matter of fact talented young people are frequently delegated to a medical school by their collective farms which defray all their expenses while they are studying in the city. The reasons that rural practice is not unattractive to Soviet doctors are easy to find and can be summarized in a few points.

The Soviet country doctor does not depend for a living on the per capita spendable income of the population he serves. Being salaried, he is economically independent. His salary is larger than that of a city doctor of equal position and experience, because his task is more difficult and his responsibility greater.⁴ Like all medical workers he enjoys all benefits of social insurance.

The erection of rural medical centers with hospital and laboratory facilities permits the country doctor to practice scientific medicine, the kind of medicine for which

he has been trained in medical school. Besides having one month's vacation every year, the rural physician attends every three years a postgraduate course of at least three months, either in regular medical schools or in special postgraduate schools. During that period he receives not only his salary but also a special allowance. The country doctor thus keeps in constant touch with medical developments. After graduation almost all young physicians spend three years in rural practice as part of their general training. This gives them an all-round experience after which they may return to the city if they so choose, but many remain in the country. This part of the training program brings a constant stream of young physicians into the rural districts.

All these factors combined have attracted many young doctors to the country but even so their number would be too small to provide medical services to the whole population, and their work is therefore supplemented by that of the so-called middle medical personnel, feldsher, midwife, and nurse. The position of feldsher and of his female counterpart, the feldsheritsa, is a peculiarly Russian institution. The feldsher was originally a "field-barber," an army surgeon, who was trained through apprenticeship. When he retired from the army, he settled down in his village and practiced medicine and surgery. With the establishment of Zemstvo medicine at a time when the number of physicians was extremely small, the demand for feldshers increased and schools were gradually founded for their training. After the Revolution there was a time when the authori-

⁴ The salary scale of rural physicians used to be slightly lower than that of city doctors, while it is now from 10 to 20 per cent higher. Decree of Sovnarkom No. 1974, December 13, 1942.

ties thought of abolishing the institution altogether by letting it die out. It was soon realized, however, that it would take the country many years to produce an adequate number of academically trained physicians and that in the meantime the feldshers could render valuable services provided they were well trained. Therefore new schools with a new curriculum were established, training feldshers, men and women, in a three-year course. Of the 460,000 middle medical workers, over one half are feldshers who assist physicians in their work and supplement it, particularly in rural districts and outlying localities.

We may compare their functions to a certain extent with those of our public health nurses, with the difference that the feldsher is also trained in surgery and obstetrics. In the present war the feldshers have proven their worth and have rendered extremely valuable services. They are used in the front lines in a capacity similar to that of our battalion surgeons and have released many physicians for work in the base hospitals.

The midwife also plays an important part in Soviet medicine, particularly in rural services. A good midwife can be very instrumental in reducing infantile mortality. She not only delivers the woman but is constantly with her after the delivery and teaches her how to care for the child. Midwives are trained in special schools of midwifery connected with maternity homes in a two-year course. They may also attend a three-year combination course from which they are graduated as feldsher-midwives. The midwife also organizes the village Soviet's Committee for the Protection of Motherhood and Infancy and is often its chairman.

Rural health services, good as they may be, always require some backing from the

city. Surgeons, gynecologists-obstetricians, and pediatricians are stationed in the rural medical centers that serve the collective farms directly. Specialists in tuberculosis, venereal diseases, psychiatrists, etc. may be found in the more elaborate facilities of the district seat, but the place of the brain surgeon and similar specialists obviously is in the city. Yet the farmer may need their services and it is necessary, therefore, to have an organization that will bring the rural patient to the city specialist or vice versa.

This problem has in many cases been solved extremely well in the Soviet Union. Thus the Moscow District Clinical Institute is a great clinical institution with a large and highly specialized staff of physicians; it serves as a clearing house for the rural district of Moscow. Complicated cases are referred to the institute for examination by the rural doctors and are either returned to their villages with detailed instructions regarding diagnosis and treatment or, if necessary, are hospitalized and treated at the institute. Doctors from the institute tour the district regularly, visit the rural medical centers, see patients, and hold conferences with the local physicians. It is obvious that the efficiency of a rural medical service is greatly increased when it has the constant support of such an institute.

Conditions are more difficult when a rural district is remote from any large city. In such cases it frequently happens that a medical school or large city hospital assumes patronage over the district and sends out flying squads of specialists, flying often in the literal sense to the villages. All large cities have ambulance airplanes ready to fly to the country in emergency cases. Dental and other clinics on wheels, laboratories on wheels, and other "health-mobiles" are

also in use, but in view of the long distances and in view of the fact that the winter is long, that snow and mud are often very deep and that country roads are pretty bad, there is no doubt that the airplane will play a much greater part in rural health work than the automobile.

The Soviet Union has made a great ef-

fort to bring modern scientific health services to the rural population of its entire vast territory. The job is by no means completed and services are not yet equally plentiful and equally good everywhere; but the pattern is set and in my opinion it is the best possible pattern at the present stage of technical development.

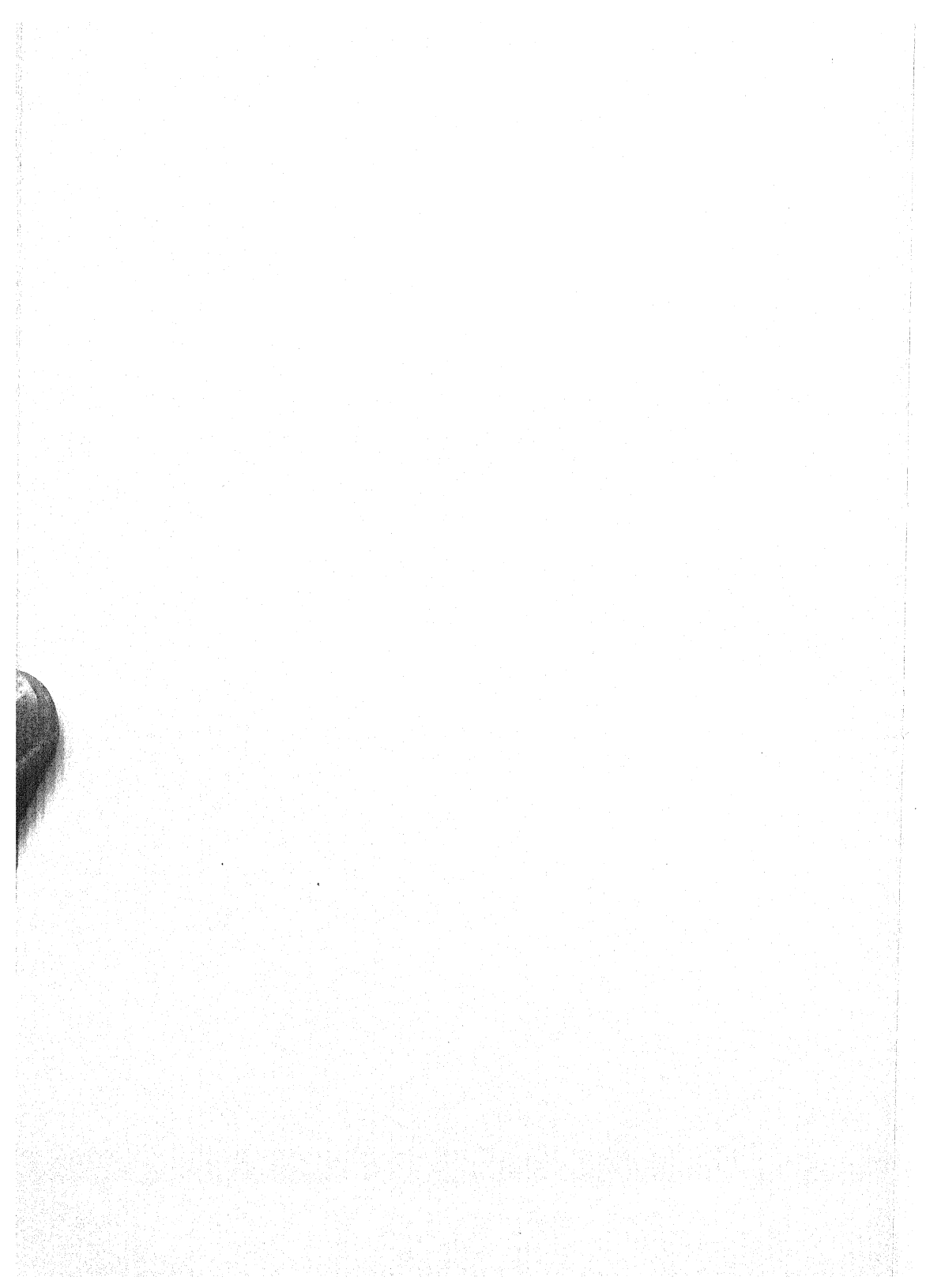
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PART TWO



CHAPTER V. THE TRUSTEE

1. Who Are These Trustees? by *Malcolm M. Willey**

THE question of the functions that should be performed by lay boards of social agencies is one that has undoubtedly arisen in the mind of everyone who has ever served on such a board. Invariably, there will be at some time doubts in the mind of the board member, leading him eventually to ask himself, "Why am I on this board and what am I supposed to do?" Presumably, lay trustee boards have functions that extend beyond formal approval of bills or generalized discussions of matters of trivial moment, but it is not always apparent just what these functions are.

On this subject there has been, of course, perennial discussion. It has been stressed time and again that lay trustee groups should play an advisory role, that lay trustees should guide in shaping the policy in terms of which agency executives will do their work. The very fact that it is a lay board, it has been reiterated, should enable the membership to constitute a link between the administrator of the agency on the one hand and the general public on the other. It is because of ties with the larger public that the lay membership is presumed to have value as a policy sounding board.

It is in this liaison relationship that a lay board can function with vitality, and the conclusion is usually reached that this is the primary reason for its existence. Board members should be in position to interpret the agency to the broad public that is being served, whether by a hospital or any other social agency, and also to interpret that public to the administrators of the agency and guide them accordingly in the

final determination of policy in all fields and with respect to all groups the agency touches.

Such generalized functions constitute the reason for the existence of the lay board. This is not the place to enter upon a prolonged discussion of the adequacy with which such functions may or may not be performed. Let it be said only that the potentialities for service that a lay trustee board presents to an agency and its administrators are not always realized. There are many reasons for this, ranging from indifference upon the part of an administrator himself to lack of leadership within the board. Most of these reasons have been analyzed many times. There is, however, one additional reason for failure of lay boards to function as they might.

Remember that it is as a sounding board against which general policy may be formulated that a lay board can function constructively; general policy can be shaped wisely only if there is an understanding by board members of the agency and its activities, as well as an understanding of the community problems that the agency seeks to meet. Policy is invariably two-sided: it must balance internal agency considerations against the broader considerations that relate to the community setting in which the agency is doing its work.

One reason for the failure of lay boards to function adequately lies in the fact that their membership, instead of representing a full cross-section of the public the agency

* Adapted from *Mod. Hosp.* 57:82, 84, Sept. 1941.

is attempting to serve, actually represents but one fragment of that public. The inevitable result is that instead of having a wide range in point of view, out of which policy is to be formulated, the board has a selected point of view and a somewhat narrow one at that. How can a board formulate a well-rounded policy that is based on a full comprehension of public needs and attitudes, if the membership of the board that formulates the policy does not have representation that touches intimately all sections of the public that is involved?

Think back to the membership of lay trustee boards with which you are familiar. A cross-section of many lay boards would be about as follows: there is a college professor, college administrator, or prominent public school man; there are one or two doctors, usually with distinguished practices; there is ordinarily a banker or employe of a financial house; one of the better-known insurance brokers of the community is there, too; there is a successful business man or manufacturer, perhaps more than one; there are two or three women of social prominence; there is a clergyman, usually from a well-known church; there are two or three members who, although they have attended meetings for several years, are silent and unidentified; finally, there is the member whose name is on the list but who never has appeared.

Certain characteristics mark this board. First, it represents only one social and economic class in the community. Such representation invariably results in homogeneity of attitude with respect to community matters; there is uniformity in the way of thinking, a uniformity that represents a special focus in point of view. Second, as a group the board is relatively conservative in all matters, a fact that may in some instances stand as a barrier to open-minded

acceptance of policy or action that might, in view of broad social needs, be worthy of careful consideration. In the third place, the board, member for member, is "eminently respectable," a fact not in itself to be deplored but the aura of a narrow respectability does on occasion tend to constrict one's point of view and color one's thinking in attacking problems of the type lay boards should sometimes be called upon to analyze. Fourth, perhaps by tradition, perhaps by training, the board members tend to approach social questions from the side of the sentimental; a "doing good" emphasis, rather than a cold and realistic study of the basic considerations involved, is characteristic. Last, this hypothetical board is uncritical or, if critical, critical in silence.

Of course, this description approaches a caricature, as any such generalized characterization must do, but it has lines of truth that are disturbing. They are disturbing because the homogeneity of thought and interest that results from the particular selection of the board members has precluded the injection of a broader base of ideas out of which well-rounded policy might be fashioned. If the original premise is sound, namely, that a lay trustee group should be a two-way channel of thought between the agency and the community, the fact that only one segment of the community is represented must invariably impede tapping all of the community sources that should be tapped to ensure a balanced understanding of community problems in relation to agency purposes. The difficulty is further magnified in the degree to which there is interlocking of agency directorates in a community.

A further question remains: if board memberships are too narrowly selected, who has been left out in the process? The answer is important because genuine community representation on the board can-

not be achieved if significant groups of the public have no voice.

Usually absent from the roster are those who may be said to represent the laboring groups of the community. Often it is from these groups that the agency or institution is drawing its patients or its clients.

Unrepresented, too, are those who may be termed "the little fellows," the small business men, the skilled tradesmen, the "white collar" workers. These are men and women whose social prominence is not great, but whose attitudes and points of view may give significant insight into the work a social agency is doing in a community, whether for the sick, the poor, the handicapped, or any others. How are the needs, the feelings, the thoughts of these groups to be tapped? How are their attitudes to be injected into policy discussions?

Likewise missing are representatives of social points of view that deviate from the orthodox mean represented by existing board members. The liberal lawyer, teacher, clergyman, or social worker is not there. Yet a board, as has been suggested, can best perform its functions if into its deliberations go varied points of view.

It is not being assumed here that lay board members are expected to have a specialist's knowledge but rather that they bring to board discussions the more inclusive social or community considerations that bear upon the work the agency is performing. As stressed at the outset, the func-

tion of the board is to pool its knowledge and understanding of agency potentialities and community needs and problems to the end that sound and workable policies may be evolved. Therefore, it seems pertinent to ask, "For really effective functioning in policy matters and to ensure vitality, is the type of homogeneity of board composition now commonly found a desirable thing? Is it not conducive to a sterility or at least a rigidity of attitude which, while comfortable, may in the long run be detrimental to the best interests of the institution? In this fact is there not one fundamental reason why lay boards do not function as adequately as they might? Does not the composition of board memberships, leaving out, as it does, representation of entire groups in the community, constitute a serious shortcoming?"

It is the suggestion of these remarks that the attack upon the problem of satisfactory board activity may well begin, not with the customary discussions of how to awaken member interest or with discussions of what superintendents and officers can do to stimulate board member participation, but rather with a critical examination of the selection that has gone into the lay board membership itself. If the membership on the board is all-inclusive and if it reflects a wide range of community needs and interests, the functioning of the board, through vital discussion, will pretty much take care of itself.

2. The Trustee Is Responsible, *by E. M. Bluestone, M.D.**

THE designation "trustee" has been aptly chosen and should be favored inasmuch as it defines itself. It is preferable to "director," "manager," "governor," or "overseer," none of which is accurately descriptive. If there were less of these four among our trustees, assuming that administrative

leadership is at hand, our hospitals would enjoy the benefits of more trustee responsibility than they now have.

Two major sets of qualifications in the selection of trustees have acquired recogni-

* Adapted from *Mod. Hosp.* 62:78, 80, Feb. 1944.

tion in varying proportions. The order of emphasis has been (a) wealth and social position and (b) education and social-mindedness. Standards of selection have not been uniform.

Men of wealth who are members of the governing group may or may not be liberal in their contributions. Men of high social position may or may not understand the full meaning of the hospital in the particular community it serves.

The qualifications of education and communal-mindedness are those that are most commonly overlooked and often forgotten in the presence of wealth and social position. Nobility is not always clothed in ermine. It is, indeed, found among the sick and the lowly and provides a common denominator for work in hospitals.

The trustee of a hospital, whose qualifications may be discovered in either sex, is the trustee of a philanthropic enterprise. The tempo of his activities may change and his responsibility may assume greater urgency at times, but the essential character of trusteeship remains.

Charity money has been entrusted to the trustee for wise spending on behalf of the sick who are under his care. To perform this duty properly, he must come fully prepared by personality, education, experience and communal standing. Patient and worker, as well as voluntary contributor and taxpayer, must believe in him. His hospital will enjoy communal support to the degree that the community has confidence in him.

The trustee must appreciate keenly the difference between right and wrong in dealing with the sick and, together with his fellows, he must be acceptable to the community as the final executive, legislative, and judicial authority. He must know the immortal chapter in praise of charity by heart and make it his guiding star.

Small things should never move the hospital board member. His knowledge of affairs must be broad. He must be big-hearted as well as big-minded. He must always be ready to respond to an appeal while resisting any kind of pressure that might divert him from his purpose.

The tendency to overemphasize the money contribution of the trustee is not well founded. Some of the most philanthropic of trustees are able to contribute relatively little to the charity box, while giving time and energy to make sure of the patients' comfort. Canonization seems to be reserved for people belonging to this group. They can, indeed, be more inspiring to the contributor and hospital worker at times than the one who is in the more fortunate position of being able to add cash donations to his efforts.

The trustee is ultimately responsible to the community at large as well as to his own conscience. His responsibilities should have the quality of comprehensiveness. Yet some contribute in a very limited way. It may be money only, taking no further interest in the affairs of the hospital and leaving it to their fellows to spend it to the best advantage. Such men, having a surplus to dispose of for the benefit of the sick poor, are human beings like the rest of us and therefore entitled to their legitimate hobbies, particularly when this privilege encourages their interest.

The trustee is, after all, godfather, patron, sponsor, and benefactor rolled into one. The trustee who, in good faith and with the best intentions in the world, becomes addicted to a hobby in the hospital must not complain when he is reminded that his "baby"—as some of them fondly call it—may be throwing the budget out of balance. Hobbies breed favoritism.

Hospital administration is at its best when a neutral body of trustees distributes

the bounty of the community in accordance with needs that have been well considered in advance. Philanthropic hobbies are not objectionable when they do not upset the budgetary balance of the hospital; unfortunately, they often do.

Some trustees are highly specialized and contribute valuable advice to hospital engineer, accountant, housekeeper, and purchasing agent. Others make their best contribution in the formulation and interpretation of hospital policy. Some, notably the businessman type of trustee, focus their attention on hospital income, while others, who are more social-minded, take more interest in hospital expenditures.

Some trustees think that a hospital should pay its own way. As a result of this principle of management, they tax the private patient, on the theory that he can be made to pay during illness, in order to get funds to neutralize the deficit caused by the charity patient, thus safely and ingeniously reducing the burden on philanthropy. The responsibility of the trustee should, however, be made of more charitable stuff. If public health is purchasable it follows that the cost should be borne equitably by the community.

The trustee who takes his responsibility seriously must consider the future and see to it that sufficient funds are available for the rainy day. The curative function, being more immediate, more urgent, and therefore more compelling, is assumed without question. For those whose interests are limited to curative medicine, the best excuse is the need for an immediate response to distress.

The progressive trustee, however, is the man who wants his hospital to be not only among the pathfinders in scientific medicine but also among those that share their knowledge, teaching as they learn. For this reason we have both classrooms and

laboratories to serve the wards immediately and future patients more remotely.

The responsible trustee is willing to be guided by others in special situations. He takes the advice of his investment counselor on the conservation of hospital finances. The market guides him with his purchases. So should he be willing to accept the counsel of his medical board in matters medical.

Under no circumstances may a trustee benefit financially from his hospital connection and this is, indeed, covered by state welfare laws. And what applies to personal advantage in this way applies with equal force in other ways. Thus, no trustee should permit his personal physician to sway him in disputed questions when his medical board has put an opinion on record.

The medical staff cannot be expected to give its confidence to the governing board when this confidence is not reciprocated. It follows that the desire on the part of any trustee to give direct orders to subordinate officers should be curbed severely, for the hospital, unlike the business establishment, is not governed by an owner whose orders are based on the profit motive and intended to ensure his survival in business.

Absentee trusteeism is a contradiction in terms and does not partake of the psychology that governs absentee landlordism. There are exceptions as, for example, in the case of the wealthy man who does not attend meetings but who gives freely out of his confidence in the ability of his fellows to carry their responsibility.

The trustee who is kept on the rolls for no other reason than the desire to curry favor with some group whose interest in the hospital is doubtful anyway should make room for others whose interest is more tangible and therefore more productive.

The trustee who is conscious of his responsibility must be far-sighted and so arrange the affairs of his hospital that it will be spared the worry of living a hand-to-mouth existence.

The late Alton B. Parker, referring to the man who severely restricts his legacy to charity in perpetuity, once remarked that some people like to do business in heaven. This type of giver is a challenge to the trustee, who must, indeed, be known to conduct the affairs of his hospital in such a way that funds will be made available to him at all times. He must be prepared, if necessary, to do business in heaven as well as on earth. The importance of this phase of trustee responsibility cannot be overestimated in prophesying the future of the hospital.

Trusteeism presupposes democracy of organization. The hospital does not get the benefit of group thinking and group effort when one man dominates the board, even though he is a forceful presiding officer or an exceptionally generous contributor. Highly specialized minds must participate. Regardless of the diversified activities of trustees outside the hospital, when they are inside the board room they employ their talents for only one purpose.

Those men who are gifted with the qualities of trusteeship are mature men of the world, often advanced in years, but as often middle-aged men whose character is so high that they must seek a way to balance their successful activities in the economic world by some kind of philanthropic work for others who are less privileged.

There are few exceptions to the rule that there is no substitute for maturity in trusteeship. Junior, associate, and auxiliary boards, with less responsibility, have an interesting place in hospital organization as a training ground for full trusteeship.

I have left for the last the greatest single responsibility of any trustee. The late Dr. S. S. Goldwater, who was the creator and dean of the profession of hospital administration, never ceased remarking, till the day of his death, that few boards of trustees in this country had solved the problem of hospital administration to the best advantage of their hospitals.

As he surveyed the scene after many years of educational effort, Doctor Goldwater found the cultural standards of administrative leadership too low, and for this he correctly blamed the governing bodies which are, in the last analysis, responsible.

The day has long ago passed when the board of trustees can depend on the hotel manager for more than specialized advice in household management. The profession of hospital administration, in spite of the best efforts of such organizations as the American Hospital Association and the American College of Hospital Administrators, does not yet command the respect it requires from the professional staffs, yet it is vital to the success of the hospital.

Such a board of trustees as I have here described deserves the best that the field of administrative medicine can offer. And it follows that, if the proper person is not available, he should be created! In this case once more, the supply will ultimately conform to the demand.

If you will show me how your board has dealt with this problem, I will tell you what kind of hospital you have. With the right kind of executive to represent it the board of trustees can consider one of its chief responsibilities well met. It may still be a difficult matter to negotiate, but it is at least as important to obtain the services of the right kind of person to represent the board in the hospital as it is to obtain money to run it.

No trustee can sleep quietly with mediocrity at the helm, and I can say from rich personal experience that the hospital executive is doubly blessed who has the con-

fidence of a board of trustees to which he can safely turn when problems of mutual responsibility arise.

3. Obligation of Trustees to the Medical Profession, *by Claude W. Munger, M.D.**

IN THE strictest sense, it may be questioned whether the trustee of a hospital owes a primary obligation to the physician, or whether, indeed, he owes a primary obligation to the hospital itself. The trustee of a hospital must consider himself basically and primarily responsible to the community which his hospital aims to serve. It is quite true that, incident to the trustee's obligation to the health and well-being of his community, there is a responsibility to those groups which are capable of contributing to the hospital's prime purpose, namely, the care and prevention of illness. While one may seem to quibble over words in making this distinction, this observer considers it desirable that the trustee shall understand that his duty transcends the interests, vested or otherwise, of any group excepting in so far as he may aid that group to give better service to the community. Having disposed of that technicality, let it be acknowledged that no group is more important than the medical profession to the proper fulfillment of the aims of the hospital.

The trustee must interest himself in the activities and the needs of the local medical profession as a whole and, especially, of the particular group of men who staff the hospital. The trustees of a hospital have undertaken, in effect, to provide the members of the community with the right kind of hospital care. Since the doctor is the principal instrumentality for rendering this service, it follows logically that the trustees must have a deep interest in him and all that he does.

One of the first lessons for the new trustee to learn is that there are "doctors and doctors." He must be made aware of a fact well known in the profession itself, that the possession of an M.D. degree and a license to practice medicine is in itself insufficient qualification for membership upon the hospital staff. The character of a hospital, the kind of work it does, and the extent to which it reaches the high humanitarian aims which every hospital should have, depend largely upon the possession by its staff members of qualifications over and above a mere degree and a license. It is most essential that the trustee should understand this at the beginning of his appointment because he, with others, must assume the serious responsibility of appointing to the hospital staff men who are really equal to the work to which they are assigned.

Usually, in a well-established hospital, the trustees will look to the senior members of the hospital staff for advice concerning the qualifications of proposed appointees. This is proper unless the trustees, as has occurred in rare instances, should be ill-advised. It behooves the trustees to maintain a reasonably questioning attitude toward recommendations from the medical board for appointments to the staff. It is almost always unfortunate if things come to such a pass that the board of trustees must refuse to appoint a physician recommended by its medical board. It will seldom be necessary thus to over-rule the medical group, if the trustees have clearly demonstrated that they will realize the seriousness of the

* Adapted from *Hospitals* 16:26-29, July 1942.

final authority which they possess over staff appointments, and have, in effect, cautioned their medical board to present only well-considered nominations.

Trustees who have acquired a real interest in and understanding of the need of the hospital for the best possible staff material will soon realize that no hospital is blessed with the perfect staff; that often the very best men obtainable will fall short of perfection for the tasks which they are required to assume. They must learn, too, that the physician who ceases to study and learn is in a decadent state and, sooner or later, will become a community and a hospital liability. The thinking trustees will logically deduce that the hospital ought to give its staff members full opportunity to continue to develop in professional knowledge and skill. While basic education is a *sine qua non* of the practice of medicine, the doctor who practices his profession and studies at the same time becomes more and more proficient, growing in ability as the years pass by. Oftentimes, physicians who would like to continue to grow professionally are unable to do so because their hospital and community offer such meager facilities for continuing to study while engaging in active practice. Comparatively few men can afford the loss of income and the out-of-pocket expense of going away to study every year or two. It is easy, under such conditions, for a doctor to get into a rut in which he will continue to travel in the same direction and with the same speed he had at the outset, and to fall more and more behind the vanguard of medical science.

It is in opportunities both for formal education and continuing self-education that the hospital, and thus its trustees, can be of immeasurable assistance to the physician. It becomes an obligation for the hospital board, not only to realize this, but to make it possible for the hospital itself to

become as much an activity in medical education as an agency for the day-to-day care of the sick. In a brief discussion, it is not possible to give many details as to how the hospital can accomplish this. Suffice it to say here that with good professional leadership, and with the enthusiastic endorsement and support of an intelligent group of trustees, a hospital can provide the members of its staff with additions to, and refreshments of, their medical knowledge.

This is much less of a problem in hospitals associated with medical schools, or in the large non-teaching hospitals. This is evidenced by the outstanding medical work of so many of our university hospitals. It has been comparatively easy for them to provide staff education of a high order. But, the task is not impossible in our small hospitals though, admittedly, in these institutions more work and effort are necessary. It is in these less favored institutions that the understanding trustee, by encouraging and generally making it possible for the hospital staff to pursue a course of self-improvement, can make a signal contribution.

The trustee must avoid the serious error of appearing, as a layman, to intrude in professional matters. On the other hand, too many boards believe they have done a complete job when they have provided a good hospital plant as the "doctors' workshop." They should be equally zealous to staff their workshop with "workmen" capable of utilizing it to an optimum degree. An excellent medical staff is a more important possession than the last word in hospital architecture.

Discreet questioning of the leaders of a hospital staff concerning the members' interests and needs in "staff education" is almost certain to elicit ideas and suggestions. If, then, it is revealed that the board is interested and will back a sensible pro-

gram, the response should be enthusiastic. The board must remain in the background and let the professional men handle the details. The active help of the administrator is necessary and whether layman, nurse, or doctor, that officer can give invaluable aid.

Community hospitals are advised to take a page from the book of the Commonwealth Fund, a foundation which has sponsored a number of excellent hospitals in rural communities. The Commonwealth Fund undertakes to "bring the mountain to Mahomet," through a plan of inviting visiting clinicians to come to the hospital for staff educational purposes. Dr. William S. Middleton, dean of the University of Wisconsin Medical School, recently told of a series of visits which he personally made to Commonwealth Fund hospitals in various parts of the country. Dr. Middleton, a skilled clinician, visited the hospitals for as long as a week each, conducted clinics, gave a few lectures, but mainly held round-table and bedside discussions for the members of the hospital staff, about the problems and recent developments in his specialty. By the Commonwealth Fund's plan, the visiting clinician is, of course, paid for his services. One doubts whether the engagement of such services costs any forbidding sum, but even if quite expensive they would be a "good buy" for any non-teaching hospital. State universities might be induced to lend members of their medical faculties for such service and to cooperate in other respects. It is in such ways that hospital trustees can aid physicians, for the benefit of the hospital patient and for the health of the general population.

The hospital trustee who wishes his area to have the right kind of medical care will find out whether it is possible for enough good physicians to make a living there. We heard a great deal about the shortage of physicians even in normal times, prior to

the present war situation. This shortage has been especially acute in rural and semirural areas, where fees are low and where, perhaps, the general affluence of the population is below the average for the country. In a few of these areas, the shortage of doctors will continue unless some sort of subsidy is arranged for their support. While doctors, by tradition, are a self-sacrificing lot, it is too much to expect them to stay in communities which cannot give them reasonable financial support. The hospital trustee in such communities must interest himself in the physician's financial welfare, and use his influence along lines calculated to give financial security to the doctor, even if it must come in part through tax funds.

Thus far in our economic history it has been unnecessary to subsidize the doctor from public funds, excepting in a limited number of areas. The average community still possesses adequate resources for the proper support of the medical talent which it needs, providing the community's attitude toward the doctor is an understanding one, and providing there is a general disposition to acknowledge the high value of the services of a good doctor. Here, the hospital trustee, because he is in a favored position for understanding the situation, can wield important influence in seeing that the community shows concrete appreciation of capable medical service.

The hospital must be willing to give all reasonable assistance to the doctor in his collection of medical fees from those hospital patients who can afford to pay a physician or whose bills are a proper responsibility of some other individual or agency. The routine of the hospital should be such as to offer maximum aid to the doctor in collecting just fees from patients covered by workmen's compensation or other forms of insurance. An increasing number of our states have enacted hospital lien laws,

which essentially require that the hospital bill be the first lien on any liability award which the patient obtains. The physician's fee is not included in these lien laws. However, the trustees should see to it that the hospital office keeps the attending physician informed about the progress of liability suits, especially notifying him when damages have been awarded or a settlement made. The very fact that the hospital, through the lien law procedure, is able to follow the progress of the patient's claims for damages, makes it possible to apprise the physician when to insist upon payment of his own bill. Some hospitals mail the physician's bill along with their own.

If the hospital trustees, and the institution which they control, extend full effort in aiding the doctor's economic situation, they have the right, in turn, to expect that he will cheerfully give his skilled care without charge to those patients who cannot themselves pay and for whom no other individual agency or governmental unit is responsible. No community hospital is worthy of its high mission, unless both it and its staff are willing to extend care entirely free to residents of the community who need that care and cannot pay for it. In a great many sections of the country, it is still a fact that people die for want of proper hospital and medical care, because there are no facilities or no funds, or both, for providing that care. It is the duty of the trustees of the community hospital and of the members of the medical staff to safeguard their population against any such unhappy situation.

In other words, the trustees, having assumed responsibility for providing care for the needy, must discharge that responsibility and may rightly expect their doctors to work hand-in-hand with them in the effort. While the hospital and the doctor have every right to demand just payment

from those who are able, it is equally important that they see that needed care is received by all economic classes. In the opinion of this writer, hospitals are more often guilty in this respect than are the members of the medical profession. There are localities still where both the doctor and his indigent patient know there is no use to think of hospital care unless some source other than the hospital itself can provide the money for it.

It is also true that there are still too many hospitals operated like business enterprises, where the administrator is made to feel that the balance sheet gives the full measure of his success as a manager, without any scrutiny of the amount of human misery which the hospital has failed to relieve. There are still trustees whose interest, at the board meeting, is to listen to the financial report. The trustee must realize, early, that a deficit usually indicates that the board has conscientiously met its obligation to the needy sick as well as to those who can pay, and that a deficit thus incurred is an evidence of good trusteeship rather than of poor management.

On the other hand, hospitals may become so imbued with the desire to serve, and the administrator so anxious to pile up staggering totals of free ward and clinic care, as to relax their admission policies too far in favor of the patient. From long years of work in charitable hospitals, the writer has acquired an ingrained distrust of those doctors whom he chooses to call the "medical economizers." He is, nevertheless, quite willing to admit that there is need to remind trustees and hospitals every now and then of their responsibility to exclude from clinic and from service wards all persons who, even by considerable effort, would be able to finance their own medical care and thus improve the physician's economic sit-

uation. If the hospital plays fair in this detail, it is, on the other hand, fully justified in making short shrift of the doctor, and he is not unknown, who contends that the patient's last nickel should be spent for his medical care.

Although the points which have been discussed have seemed worthy of emphasis, the writer realizes that few of them will be new to the experienced trustee. But, in these dark days of war, our hospitals are being deprived of many of their best doc-

tors. It is surely an appropriate time for the trustee to give thought to the doctor's importance in the hospital scene and to lay plans for aiding him to be even more effective in the future. No hospital can attain a half measure of success without a devoted and capable medical staff, and no medical staff can give its best service to patient and community unless it enjoys the kindly understanding, intelligent cooperation, and staunch support of the members of the board of trustees.

4. If I Were a Trustee, by *Howard R. Taylor**

As a student in a formal course in hospital administration for the last four months, I have heard a variety of speakers on a variety of subjects. One note invariably finds its way into lectures and discussions of everything from staticproof operating room floors to bed endowments—trustees.

I have been told that trustees are wonderful people, complete with halos, intelligence, and an admirable sense of social justice. Other lecturers have hinted in not too subtle a manner that trustees are stupid, selfish, and a thoroughly despicable species of mankind. One bright note by a harassed administrator was that when he passed on to his reward in heaven, his troubles would be over as he would never again meet a trustee.

No doubt there are trustees of both varieties, but as the hospital trustee is apparently here to stay, those who wish to enter the field of hospital administration must accept the fact and learn to live with it.

Just as no trustee can reasonably expect his administrator completely to measure up to any of the frequently published lists of what the ideal administrator should be, neither can the administrator expect his

trustee to be possessed of all the virtues it is possible to set down on a printed page as the ideal in total qualifications for a trustee. As ideal individuals seldom exist, there is little reason to expect to find them on a hospital board of trustees. With this in mind, were I suddenly elected to a hospital board of trustees, here is the way I should like to be.

First of all, I would have a sincere interest in those more unfortunate than myself. The sick and injured should arouse the interest and sympathy of us all and, by promoting the best in hospital care at the lowest possible cost, I would in some degree benefit these unfortunates and the community. By viewing the hospital as only a part of the total health program, I would endeavor to aid in the cooperation between the hospital and other health agencies in the community.

A realistic appreciation of my responsibilities as a trustee of an important community health utility would be most desirable. I would eschew the honor of election in favor of the opportunity to further the best interests of the hospital and the

* Adapted from *Mod. Hosp.* 67:96, 98, Sept. 1946.

community, bearing in mind that the hospital belongs to the public, not to me. By cultivating a real interest in health and medical work and all auxiliary phases of running a hospital, I would better prepare myself for fully accepting my responsibilities.

While accepting all the duties delegated to me and executing them to the best of my ability, I would bear in mind that, as a trustee, I am not expected actually to run the hospital. There are many sincere and well-meaning trustees at large today who by their ignorance or disregard of this fact are unwittingly inviting murder. The person to administer the hospital properly is, logically, the administrator.

Assuming that the administrator has been chosen wisely, my duties as a trustee can be performed to the best interest of all by cooperating with him, treating him as a partner in this hospital endeavor, and respecting his position and judgment. I would try to remember at all times that, if I expect the loyalty of the administrator, I, in turn, must be loyal to him. By recognizing where his responsibility begins and respecting that line by never overstepping it, an effective and mutually satisfying basis for carrying out the hospital's mission would have been established.

I would willingly contribute the benefits of experience in my private business or professional life and share that knowledge with the hospital. Because of the diversified activities found under the hospital roof, there are few specialties in business or professional life from which the hospital cannot draw valuable advice. While guiding the administrator and my fellow board members, when so qualified, I would not attempt to benefit financially from my position or my special knowledge at the expense of the hospital. While there may

be isolated instances in which this would be impractical and to the disadvantage of the hospital, those instances are so rare as to make them "the exception that proves the rule."

While guiding the board and the administrator along my particular specialty, I would constantly strive to remember that I am not expert on all hospital affairs. To correct this condition and, by so doing, to become a better trustee, I would read current hospital literature in an attempt to educate myself in hospital and health matters.

When he is first elected, the average trustee cannot be expected to be an expert on hospitals, but continued ignorance after the first year or two indicates that there is little interest in the hospital or that the trustee lacks the willingness to learn. By failing to be properly informed of at least the broad phases of hospital administration, the trustee can, instead of aiding the hospital, be harmful by failing to recognize its proper function in the health program of the community and thereby aiding in destroying the hospital's usefulness.

Future planning is essential for continued success of a hospital. Trustees with vision who plan for the future needs and growth are important and necessary to the hospital. With this knowledge, I would always attempt to look ahead in formulating policies and plans for the institution in order that progress of the hospital would not be retarded.

I would have a realization of my legal responsibilities as a hospital trustee. It would definitely guide my selection or approval of the administrator, the medical staff, and other personnel of the hospital. By safeguarding myself, I would shield the hospital from legal action arising from improper selection of personnel.

A modern, realistic personnel policy for the hospital would be of great interest to me as a trustee. I would not expect the employees to contribute their time and energy without fair compensation, as is so often expected. Hospital employees have every reason to desire and expect the pay that comparable workers receive in the industrial field. My influence would be used in advancing such a personnel policy, with retirement plan, hospitalization benefits, adequate vacations, and a living wage for every worker. These employees have a right to such a program.

While such a plan might seem directly opposed to furnishing medical care of the highest type at the lowest cost to the patient, truly high standards cannot be maintained when the hospital personnel is underpaid and therefore insecure and dissatisfied. While the patient rightly is considered first, the personnel cannot be ignored because eventually such action will adversely affect the hospital's ability to care for the patient adequately.

The hospital that is successful in carrying out its aim represents the ideal in cooperation. Like our national government, the hospital is made up of many smaller units, independent yet unable to function alone, and all striving and working toward one goal, which in the hospital's case is caring for the patient. In spite of the seeming distance between the surgeon and the pot-washer in the kitchen, each is, in his own way, contributing to the patient's care. So it should be with the trustee. Although he has an important role in the hospital endeavor, he, too, is performing a job and to fulfill that job successfully he must cooperate with all others concerned, not viewing his position as a separate entity, a thing apart, but rather as a part of the whole.

To conclude, the trustee should be well informed, should recognize the rights of others, and should be cooperative. With such qualifications the trustee should be of real value to his hospital and his community—and that is the way I would want to be if I were a trustee.

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CHAPTER VI. HOSPITAL ORGANIZATION AND MANAGEMENT

1. Decision-making and Administrative Organization, by *Herbert A. Simon**

IT is clear that the actual physical task of carrying out an organization's objectives falls to the persons at the lowest level of the administrative hierarchy. The automobile, as a physical object, is built not by the engineer or the executive, but by the mechanic on the assembly line. The fire is extinguished not by the fire chief or the captain, but by the team of firemen who play a hose on the blaze.

It is equally clear that the persons above this lowest or operative level in the administrative hierarchy are not mere surplus baggage, and that they too must have an essential role to play in the accomplishment of the agency's objectives. Even though, as far as physical cause and effect are concerned, it is the machine-gunner, and not the major, who fights battles, the major will likely have a greater influence upon the outcome of a battle than will any single machine-gunner.

How, then, do the administrative and supervisory staffs of an organization affect that organization's work? The nonoperative staff of an administrative organization participate in the accomplishment of the objectives of that organization to the extent that they influence the decisions of the operatives—the persons at the lowest level of the administrative hierarchy. The major can influence the battle to the extent that his head is able to direct the machine-gunner's hand. By deploying his forces in the battle area and assigning specific tasks to subordinate units, he determines for the machine-gunner where he will take his stand and what his objective will be. In

very small organizations the influence of all supervisory employees upon the operative employees may be direct, but in units of any size there are interposed between the top supervisors and the operative employees several levels of intermediate supervisors who are themselves subject to influences from above and who transmit, elaborate, and modify these influences before they reach the operatives.

If this is a correct description of the administrative process, then the construction of an efficient administrative organization is a problem in social psychology. It is a task of setting up an operative staff and superimposing on that staff a supervisory staff capable of influencing the operative group toward a pattern of coordinated and effective behavior. I have deliberately used the term "influencing" rather than "directing," for direction—that is, the use of administrative authority—is only one of several ways in which the administrative staff may affect the decisions of the operative staff; and, consequently, the construction of an administrative organization involves more than a mere assignment of functions and allocation of authority.

It is the operative employee who must be at the focus of attention in studying an organization, for the success of the structure will be judged by the way in which he performs within it. In this paper, administrative theory will be approached from this

* Adapted from *Pub. Administration Rev.* 4: 16-30, Winter 1944. This article later appeared as Chapter I in Mr. Simon's *Administrative Behavior*, New York, The Macmillan Co., 1947.

standpoint: by analyzing the manner in which the decisions and behavior of operative employees are influenced by the organization.

NECESSITY FOR "VERTICAL" SPECIALIZATION

Most analyses of organization have emphasized "horizontal" specialization—the division of work—as the basic characteristic of organized activity. Luther Gulick, for example, in his *Notes on the Theory of Organization*, says: "Work division is the foundation of organization; indeed, the reason for organization."¹

In this paper we shall be primarily concerned with "vertical" specialization—the division of decision-making duties between operative and supervisory personnel. Our first inquiry will be into the reasons why the operative employees are deprived of a portion of their autonomy in the making of decisions and subjected to the authority and influence of supervisors.

There would seem to be at least three reasons for vertical specialization in organization. First, if there is any horizontal specialization, vertical specialization is absolutely essential to achieve coordination among the operative employees. Second, just as horizontal specialization permits greater skill and *expertise* to be developed by the operative group in the performance of their tasks, so vertical specialization permits greater *expertise* in the making of decisions. Third, vertical specialization permits the operative personnel to be held accountable for their decisions: to the board of directors in the case of a business organization; to the legislative body in the case of a public agency.

Coordination. Group behavior requires not only the adoption of *correct* decisions, but also the adoption by all members of the group of the *same* decisions. Suppose ten

persons decide to cooperate in building a boat. If each has his own plan and they don't bother to communicate their plans, the resulting craft is not apt to be very seaworthy; they would probably have met with better success if they had adopted even a very mediocre design and then had all followed this same design.

By the exercise of authority or other forms of influence, it is possible to centralize the function of deciding so that a general plan of operations will govern the activities of all members of the organization. This coordination may be either procedural or substantive in nature. By procedural coordination is meant the specification of the organization itself—that is, the generalized description of the behaviors and relationships of the members of the organization. Procedural coordination establishes the lines of authority and outlines the spheres of activity of each organization member, while substantive coordination specifies the content of his work. In an automobile factory, an organization chart is an aspect of procedural coordination; blueprints for the engine-block of the car being manufactured are an aspect of substantive coordination.

Expertise. To gain the advantages of specialized skill at the operative level, the work of an organization must be so subdivided that all processes requiring a particular skill can be performed by persons possessing that skill. Likewise, to gain the advantages of *expertise* in decision-making, the responsibility for decisions must be so allocated that all decisions requiring a particular skill can be made by persons possessing that skill.

To subdivide decisions is rather more

¹ Luther Gulick and L. Urwick, editors, *Papers on the Science of Administration*, New York, Institute of Public Administration, 1937, p. 3.

complicated than to subdivide performance; for while it is not usually possible to combine the sharp eye of one workman with the steady hand of another to secure greater precision in a particular operation, it is often possible to add the knowledge of a lawyer to that of an engineer in order to improve the quality of a particular decision.

Frederick Taylor's theories of shop organization were primarily concerned with this aspect of the decision-making process. The purpose of his scheme of functional foremanship was to make certain that the decisions respecting every aspect of the workman's job would be reached by a highly specialized and expert technician.

Responsibility. Writers on the political and legal aspects of authority have emphasized that a primary function of organization is to enforce the conformity of the individual to norms laid down by the group, or by its authority-wielding members. The discretion of subordinate personnel is limited by policies determined near the top of the administrative hierarchy. When the maintenance of responsibility is a central concern, the purpose of vertical specialization is to assure legislative control over the administrator, leaving to the administrative staff adequate discretion to deal with technical matters which a legislative body composed of laymen would not be competent to decide.

In designing an organization all three factors—*expertise*, coordination, and responsibility—must be given weight. Taylor's theory, for example, has been deservedly criticized for ignoring the factors of coordination and responsibility, while some of his critics can perhaps be accused of undervaluing the importance of *expertise* in decision-making. The real question is one of how much each of these

aims is to be sacrificed to the others, and our present knowledge of administrative theory does not permit us to give any *a priori* answer to this question.

THE RANGE OF DISCRETION

The term "influence" covers a wide range, both in the degree to which one person affects the behavior of another and in the method whereby that influence is exercised. Without an analysis of these differences of degree and kind no realistic picture can be drawn of an administrative organization. It is because of its failure to account for variations in influence that the usual organization chart, with its oversimplified representation of the "lines of authority," fails to record the complexity of actual organizations. The organization chart does not reveal the fact that the actual exercise of authority may, and often does, cut across formal organizational lines, and that forms of influence other than authority—information, training, identification—may be far more important than the former in securing coordination throughout the organization.

Influence is exercised in its most complete form when a decision promulgated by one person governs every aspect of the behavior of another. On the parade ground, the marching soldier is permitted no discretion whatsoever. His every step, his bearing, the length of his pace are all governed by authority. Frederick the Great is reported to have found the parade-ground deportment of his Guards perfect—with one flaw. "They breathe," he complained. Few examples could be cited, however, from any other realm of practical affairs where influence is exercised in such complete and unlimited form.

Most often, organizational influences

place only partial limits upon the exercise of discretion. A subordinate may be told what to do but given considerable leeway as to how he will carry out the task. The "what" is, of course, a matter of degree also and may be specified within narrower or broader limits. The commands of a captain at the scene of a fire place much narrower limits on the discretion of the firemen than those placed on a fire chief by the city charter which states in general terms the function of the fire department.

Since influence can be exercised with all degrees of specificity, in order to determine the scope of influence or authority which is exercised in any concrete case, it is necessary to dissect the decisions of the subordinate into their component parts and then determine which of these parts are controlled by the superior and which are left to the subordinate's discretion.

Influence over Value and Fact. Any rational decision may be viewed as a conclusion reached from certain premises. These premises are of two different kinds: value premises and factual premises—roughly equivalent to ends and means, respectively. Given a complete set of value and factual premises, there remains only one unique decision which is consistent with rationality. That is, with a given system of values and a specified set of possible alternatives, there is one alternative of the set which is preferable to the others.

The behavior of a rational person can be controlled, therefore, if the value and factual premises upon which he bases his decisions are specified for him. This control can be complete or partial—all the premises can be specified, or some can be left to his discretion. The scope of influence, and conversely the scope of discretion, are determined by the number and importance of the premises which are specified and the

number and importance of those which are left unspecified.

There is one important difference between permitting a subordinate discretion over value premises and permitting him discretion over factual premises. The latter can always be evaluated as correct or incorrect in an objective, empirical sense (of course, we do not always have the evidence we would need to decide whether a premise is correct or incorrect, but at least the terms "correct" and "incorrect" are applicable to a factual premise). To a value premise, on the other hand, the terms "correct" and "incorrect" do not apply. To say that a means is correct is to say that it is appropriate to its end; but to say that an end is correct is meaningless unless we redefine the end as a means to some more final end—in which case its correctness as means ceases to be a value question and becomes a factual question.

Hence, if only factual premises are left to the subordinate's discretion, there is, under the given circumstances, only one decision which he can correctly reach. On the other hand, if value premises are left to the subordinate's discretion, the "correctness" of his decision will depend upon the value premises he selects and there is no universally accepted criterion of right or wrong which can be applied to his selection.²

This distinction between factual and value premises has an obvious bearing on

² In a sense, the discretion over factual questions which is left the operative is illusory, for he will be held accountable for reaching correct conclusions even with respect to those premises which are not specified in his orders. But it is a question of salient importance for the organization whether the subordinate is guided by orders in *making his decision* or whether he makes it on his own responsibility, subject to subsequent review. Hence, by "discretion" we mean only that standing orders and "on-the-spot" orders do not completely determine the decision.

the question of how discretion is to be reconciled with responsibility and accountability, and what the line of division is to be between "policy" and "administration." To pursue this subject further would take us beyond the bounds of the present analysis, and we leave it with a reference to two recent contributions to the problem.³

Implications for Unity of Command. When it is admitted that influence need extend to only a few of the premises of decision, it follows that more than one order can govern a given decision, provided that no two orders extend to the same premise. An analysis of almost any decision of a member of a formal organization would reveal that the decision was responsive to a very complex structure of influences.

Military organization affords an excellent illustration of this. In ancient warfare, the battlefield was not unlike the parade ground. An entire army was often commanded by a single man, and his authority extended in a very complete and direct form to the lowest man in the ranks. This was possible because the entire battlefield was within range of a man's voice and vision and because tactics were for the most part executed by the entire army in unison.

The modern battlefield presents a very different picture. Authority is exercised through a complex hierarchy of command. Each level of the hierarchy leaves an extensive area of discretion to the level below, and even the private soldier, under combat conditions, exercises a considerable measure of discretion.

Under these circumstances, how does the authority of the commander extend to the soldiers in the ranks? How does he limit and guide their behavior? He does this by specifying the general mission and objective of each unit on the next level below and by determining such elements of time and

place as will assure a proper coordination among the units. The colonel assigns to each battalion in his regiment its task; the lieutenant colonel to each company; the captain to each platoon. Beyond this the officer ordinarily does not go. The internal deployment of each unit is left to the officer in command of that unit. The United States Army Field Service Regulations specify that "an order should not trespass upon the province of a subordinate. It should contain everything that the subordinate must know to carry out his mission, but nothing more."⁴

So far as field orders go, then, the discretion of a subordinate officer is limited only by the specification of the objective of his unit and its general schedule. He proceeds to narrow further the discretion of his own subordinates so far as is necessary to specify what part each sub-unit is to play in accomplishing the task of the whole.

Does this mean that the decision of the officer is limited only by his objective or mission? Not at all. To be sure, the field order does not go beyond this point, for it specifies only the "what" of his action. But the officer is also governed by the tactical doctrine and general orders of the army which specify in some detail the "how." When the captain receives field orders to deploy his company for an attack, he is expected to carry out the deployment in accordance with the accepted tactical principles in the army. In leading his unit, he will be held accountable for the "how" as well as the "what."

The same kind of analysis could be car-

³ Wayne A. R. Leys, Ethics and administrative discretion, *Public Administration Review* 3:10-23, Winter, 1943; and Herman Finer, Administrative responsibility in democratic government, *Public Administration Review*, 1:335-350, Summer 1941.

⁴ U.S. Army Field Service Regulations (1941), p. 31.

ried out for the man who actually does the army's "work"—the private soldier; and we would see that the mass of influences that bear upon his decisions include both direct commands and tactical training and indoctrination.

We find, then, that to understand the process of decision in an organization it is necessary to go far beyond the on-the-spot orders which are given by superior to subordinate. It is necessary to discover how the subordinate is influenced by standing orders, by training, and by review of his actions. It is necessary to study the channels of communication in the organization in order to determine what information reaches him which may be relevant to his decisions. The broader the sphere of discretion left to the subordinate by the orders given him, the more important become those types of influence which do not depend upon the exercise of formal authority.

Once this complex network of decisional influences comes into view it becomes difficult to defend either the sufficiency or the necessity of the doctrine of "unity of command." Its sufficiency must be questioned on the same grounds that the sufficiency of the organization chart is questioned: at best it tells only a half-truth, for formal authority is only one aspect—and that probably not the most important—of organizational structure.

The necessity of "unity of command" must be questioned because there do not appear to be any *a priori* grounds why a decision should not be subject to several organizational influences. Indeed, a number of serious students of administration have advocated this very thing—we have already mentioned Taylor's theory of functional supervision—and their arguments cannot be waved aside with the biblical quotation that "no man can serve two masters."⁵ It remains to be demonstrated that "unity of

command" rather than "plurality of command" either is, or should be, the prevalent form of administrative structure.

ORGANIZATIONAL INFLUENCES ON THE SUBORDINATE

Thus far we have been talking about the extent of the organization's influence over its employees. Next we must consider the ways in which this influence is exerted. The subordinate is influenced not only by command but also by his organizational loyalties, by his strivings toward "efficient" courses of action, by the information and advice that are transmitted to him through the organization's lines of communication, and by his training. Each of these items deserves brief discussion.

Authority. The concept of authority has been analyzed at length by students of administration. We shall employ here a definition substantially equivalent to that put forth by C. I. Barnard.⁶ A subordinate is said to accept authority whenever he permits his behavior to be guided by a decision reached by another, without independently examining the merits of that decision. When exercising authority, the superior does not seek to convince the subordinate, but only to obtain his acquiescence. In actual practice, of course, authority is usually liberally admixed with suggestion and persuasion.

An important function of authority is to permit a decision to be made and carried out even when agreement cannot be reached, but perhaps this arbitrary aspect

⁵ For a recent advocacy of plural supervision, see A. W. Macmahon, J. D. Millett, and G. Ogden, *The Administration of Federal Work Relief* (Chicago: Public Administration Service, 1941), pp. 265-268.

⁶ Chester I. Barnard, *The Functions of the Executive*, Cambridge, Harvard University Press, 1940, pp. 163 ff.

of authority has been overemphasized. In any event, if it is attempted to carry authority beyond a certain point, which may be described as the subordinate's "zone of acquiescence," disobedience will follow.⁷ The magnitude of the zone of acquiescence depends upon the sanctions which authority has available to enforce its commands. The term "sanctions" must be interpreted broadly in this connection, for positive and neutral stimuli—such as community of purpose, habit, and leadership—are at least as important in securing acceptance of authority as is the threat of physical or economic punishment.

It follows that authority, in the sense here defined, can operate "upward" and "sidewise" as well as "downward" in the organization. If an executive delegates to his secretary a decision about file cabinets and accepts her recommendation without re-examination of its merits, he is accepting her authority. The "lines of authority" represented on organization charts do have a special significance, however, for they are commonly resorted to in order to terminate debate when it proves impossible to reach a consensus on a particular decision. Since this appellate use of authority generally requires sanctions to be effective, the structure of formal authority in an organization usually is related to the appointment, disciplining, and dismissal of personnel. These formal lines of authority are commonly supplemented by informal authority relations in the day-to-day work of the organization, while the formal hierarchy is largely reserved for the settlement of disputes.

Organizational Loyalties. It is a prevalent characteristic of human behavior that members of an organized group tend to identify with that group. In making decisions their organizational loyalty leads them to evaluate alternative courses of ac-

tion in terms of the consequences of their action for the group. When a person prefers a particular course of action because it is "good for America," he identifies with Americans; when he prefers it because it will "boost business in Berkeley," he identifies with Berkeleyans. National and class loyalties are examples of identifications which are of fundamental importance in the structure of modern society.

The loyalties which are of particular interest in the study of administration are those which attach to administrative organizations or segments of such organizations. The regimental battle-flag is the traditional symbol of this identification in military administration; in civil administration, a frequently encountered evidence of identification is the cry: "Our Bureau needs more funds!"

The psychological bases of identification are obscure, but seem to involve at least three elements. First, personal success often depends upon organizational success—the administrator who can build up his unit expects (with good reason) promotion and salary increases. Second, loyalty seems based partly on a transfer to the field of public management of the spirit of competition which is characteristic of private enterprise. Third, the human mind is limited in the number of diverse considerations which can occupy the area of attention at one time, and there is a consequent tendency to overemphasize the importance of those elements which happen to be within that area. To the fireman, fires are the most serious human problem; to the health officer, disease; and so forth.

This phenomenon of identification, or institutional loyalty, performs one very important function in administration. If an

⁷ Barnard calls this the "zone of indifference" (*ibid.*, p. 169), but I prefer the term "acquiescence."

administrator, each time he is faced with a decision, must perforce evaluate that decision in terms of the whole range of human values, rationality in administration is impossible. If he need consider the decision only in the light of limited organizational aims, his task is more nearly within the range of human powers. The fireman can concentrate on the problem of fires, the health officer on problems of disease, without irrelevant considerations entering in.

Furthermore, this concentration on a limited range of values is almost essential if the administrator is to be held accountable for his decisions. When the organization's objectives are specified by some higher authority, the major value-premise of the administrator's decisions is thereby given him, leaving to him only the implementation of these objectives. If the fire chief were permitted to roam over the whole field of human values—to decide that parks were more important than fire trucks, and consequently to remake his fire department into a recreation department—chaos would displace organization and responsibility would disappear.

Organizational loyalties lead also, however, to certain difficulties which should not be underestimated. The principal undesirable effect of identification is that it prevents the institutionalized individual from making correct decisions in cases where the restricted area of values with which he identifies must be weighed against other values outside that area. This is a principal cause of the interbureau competition and wrangling which characterize any large administrative organization. The organization members, identifying with the bureau instead of with the over-all organization, believe the bureau's welfare more important than the general welfare when the two conflict. This problem is frequently

evident in the case of "housekeeping" agencies, where the facilitative and auxiliary nature of the agency is lost sight of in the effort to force the line agencies to follow standard procedures.

Institutional loyalties also result in incapacitating almost any department head for the task of balancing the financial needs of his department against the financial needs of other departments—whence the need for a centrally located budget agency which is free from these psychological biases. The higher we go in the administrative hierarchy, the broader becomes the range of social values which must come within the administrator's purview, the more harmful is the effect of valualational bias, and the more important is it that the administrator be freed from his narrower identifications.

The Criterion of Efficiency. We have seen that the exercise of authority and the development of organizational identifications are two principal means whereby the individual's value premises are influenced by the organization. What about the issues of fact which underly his decisions? These are largely determined by a principle which underlies all rational behavior: the criterion of efficiency. In its broadest sense, to be efficient simply means to take the shortest path, the cheapest means, toward the attainment of the desired goals. The efficiency criterion is completely neutral as to what goals are to be attained.

The concept of efficiency has been discussed at length by economists and writers on administration, and there is little that can be added to that discussion within the scope of the present paper. Suffice it to say that the commandment, "Be efficient!" is a major organizational influence over the decisions of the members of any administrative agency; and a determination whether

this commandment has been obeyed is a major function of the review process.⁸

Advice and Information. Many of the influences the organization exercises over its members are of a less formal nature than those we have been discussing. These influences are perhaps most realistically viewed as a form of internal public relations, for there is nothing to guarantee that advice produced at one point in an organization will have any effect at another point in the organization unless the lines of communication are adequate to its transmission and unless it is transmitted in such form as to be persuasive. It is a prevalent misconception in headquarters offices that the internal advisory function consists in preparing precisely worded explanatory bulletins and making certain that the proper number of these are prepared and that they are placed in the proper compartment of the "router." No plague has produced a rate of mortality higher than the rate which customarily afflicts central-office communications between the time they leave the issuing office and the moment when they are assumed to be effected in the revised practice of the operative employees.

These difficulties of communication apply, of course, to commands as well as to advice and information. As a matter of fact, the administrator who is serving in an advisory capacity is apt to be at some advantage in solving problems of communication, because he is likely to be conscious of the necessity of transmitting and "selling" his ideas, while the administrator who possesses authority may be oblivious of his public-relations function.

Information and advice flow in all directions through the organization—not merely from the top downward. Many of the facts which are relevant to decision are of a rapidly changing nature, ascertainable

only at the moment of decision, and often ascertainable only by operative employees. For instance, in military operations, knowledge of the disposition of the enemy's forces is of crucial importance, and military organization has developed elaborate procedures for transmitting to a person who is to make a decision all relevant facts which he is not in a position to ascertain personally.

Information and advice may be used as alternatives to the actual exercise of authority, and vice versa. Where promptness and discipline are not primary considerations, the former have several very impressive advantages. Chief among these is that they preserve morale and initiative on the part of the subordinate—qualities which may disappear if excessively harassed by authority. Again, when the influences are advisory in nature, the formal organization structure loses its unique position as the sole channel of influence. The relation between the adviser and the person advised is essentially no different when they are members of the same organization than when the adviser is outside the organization. The extent of the influence of the adviser will depend on the desire of the decision-maker for advice and on the persuasiveness with which it is offered.

Training. Like institutional loyalties, and unlike the other modes of influence we have been discussing, training influences decisions "from the inside out." That is, training prepares the organization member to reach satisfactory decisions himself, without the need for the constant exercise of authority or advice. In this sense, training procedures are alternatives to the exer-

⁸ For further discussion of the efficiency concept, see Clarence E. Ridley and Herbert A. Simon, *Measuring Municipal Activities*, Chicago, International City Managers' Association, 1943.

cise of authority or advice as means of control over the subordinate's decisions.

Training may be of an in-service or a pre-service nature. When persons with particular educational qualifications are recruited for certain jobs, the organization is depending upon this pre-training as a principal means of assuring correct decisions in their work. The mutual relation between training and the range of discretion which may be permitted an employee is an important factor to be taken into consideration in designing the administrative organization. That is, it may often be possible to minimize, or even dispense with, certain review processes by giving the subordinates training which enables them to perform their work with less supervision. Similarly, in drafting the qualifications required of applicants for particular positions, the possibility should be considered of lowering personnel costs by drafting semi-skilled employees and training them for particular jobs.

Training is applicable to the process of decision whenever the same elements are involved in a large number of decisions. Training may supply the trainee with the facts necessary in dealing with these decisions, it may provide him a frame of reference for his thinking, it may teach him "approved" solutions, or it may indoctrinate him with the values in terms of which his decisions are to be made.

Training, as a mode of influence upon decisions, has its greatest value in those situations where the exercise of formal authority through commands proves difficult. The difficulty may lie in the need for prompt action, in the spatial dispersion of the organization, or in the complexity of the subject matter of decision which defies summarization in rules and regulations. Training permits a higher degree of decentralization of the decision-making proc-

ess by bringing the necessary competence into the very lowest levels of the organizational hierarchy.

Implications for Organization. It can be seen that there are at least five distinct ways in which the decisions of operative employees may be influenced: authority, identification, the efficiency criterion, advice, and training. It is the fundamental problem of organization to determine the extent and the manner in which each of these forms of influence is to be employed. To a very great extent, these various forms are interchangeable—a fact which is far more often appreciated in small than in large organizations.

The simplest example of this is the gradual increase in discretion which can be permitted an employee as he becomes familiar with his job. A secretary learns to draft routine correspondence; a statistical clerk learns to lay out his own calculations. In each case, training has taken the place of authority in guiding the employee's decisions.

Another illustration is the process of functional supervision whereby technical experts are given advisory, but not usually authoritative, relations with subordinate employees. This substitution of advice for authority may prove necessary in many situations in order to prevent conflicts of authority between line officers, organized on a geographical basis, and functional experts, organized along subject-matter lines. To the extent that these forms of influence supplement, or are substituted for, authority, the problem of influence becomes one of education and public relations, as has already been explained.

Administrators have increasingly recognized in recent years that authority, unless buttressed by other forms of influence, is relatively impotent to control decision in any but a negative way. The elements en-

tering into all but the most routine decisions are so numerous and so complex that it is impossible to control positively more than a few. Unless the subordinate is himself able to supply most of the premises of decision, and to synthesize them adequately, the task of supervision becomes hopelessly burdensome. To cite an extreme illustration: no amount of supervision or direction, and no quantity of orders, directives, or commands, would be sufficient to enable a completely untrained person to prepare a legal brief for a lawsuit. In such a case, the problem is definitely not one of direction, but one of education or training.

Viewed from this standpoint, the problem of organization becomes inextricably interwoven with the problem of recruitment. For the system of influence which can effectively be used in the organization will depend directly upon the training and competence of employees at the various levels of the hierarchy. If a welfare agency can secure trained social workers as interviewers and case workers, broad discretion can be permitted them in determining eligibility, subject only to a sampling review and a review of particularly difficult cases. If trained workers can be obtained only for supervisory positions, then the supervisors will need to exercise a much more complete supervision over their subordinates, perhaps reviewing each decision and issuing frequent instruction. The supervisory problem will be correspondingly more burdensome than in the first example, and the effective span of control of supervisors correspondingly narrower.

Likewise, when an organization unit is large enough so that it can retain within its own boundaries the specialized *expertise* that is required for some of its decisions, the need for functional supervision from other portions of the organization be-

comes correspondingly less. When a department can secure its own legal, medical, or other expert assistance, the problems of functional organization become correspondingly simpler, and the lines of direct authority over the department need less supplementation by advisory and informational services.

Hence, problems of organization cannot be considered apart from the specifications and actual qualifications of the employees who are to fill the positions established by the organization. The whole subject of job classification must be brought into close coordination with the theory of organization. The optimum organizational structure is a variable, depending for its form upon the staffing of the agency. Conversely, the classification of a position is a variable, depending upon the degree of centralization or decentralization which is desired or anticipated in the operation of the organizational form.

THE COMMUNICATION OF INFLUENCE

It has already been pointed out that if it is wished to bring orders or advice to bear on the decisions of a subordinate, the orders or advice must be communicated to the subordinate; and that this communication is not merely a matter of physical transmission, but a process of actually inducing changes in the subordinate's behavior. The costs of the communication process are comparable to, and as real as, a manufacturer's advertising costs.

A manufacturer determines his advertising budget by the amount by which additional advertising will increase sales. When the additional receipts he expects are no longer sufficient to cover the additional advertising and manufacturing costs, he stops the expansion of his advertising program. An approach of a very similar kind needs to be introduced in the design-

ing of administrative organizations. The cost of "producing" decisions in the supervisory staff and the cost of communicating these decisions to the operating personnel must be weighed against the expected increase in effectiveness of the latter.

The different forms of organizational influence must be balanced against each other in the same way. A training program involves a large initial investment in each operative employee, but low "maintenance" costs; orders and commands require no initial investment, but high and continuous costs of "production" and communication; if pre-trained employees are recruited, salaries may be higher but a less elaborate supervisory structure will be required; and so forth. Again, we have reached a question of *how much*, and theory, without data, cannot give us an answer.

ADMINISTRATIVE PROCESSES FOR INSURING CORRECT DECISIONS

Having analyzed the various kinds of influence which condition the decisions of members of administrative organizations, we turn next to some concrete administrative processes to see how they fit into our scheme of analysis. The first of these is planning—the process whereby a whole scheme is worked out in advance before any part of it is carried out through specific decisions. The second of these is review—the process whereby subordinates are held to an accounting for the quality of their decisions and of the premises from which these decisions were reached.

Planning. Plans and schedules are ordinarily carried into effect by the exercise of authority, but of greater importance than this final act of approving or authorizing a plan are the decisional processes which go into the making of the plan. Planning is

an extremely important decision-making process because of the vast amount of detail that can be embodied in the plan for a complex project and because of the broad participation that can be secured, when desirable, in its formulation.

As a good illustration of this we may summarize the procedure a navy department goes through in designing a battleship, as described by Sir Oswyn A. R. Murray. First, the general objectives are set out—the speed, radius of action, armor, and armament it is desired to attain in the finished design. Next, several provisional designs are developed by a staff of "generalists" who are familiar with all aspects of battleship design. On the basis of these alternative provisional designs, a final decision is reached on the general lines of the new ship. At this point the specialists are brought in to make recommendations for the detailed plan. Their recommendations will often require modification of the original design, and they will often recommend mutually conflicting requirements. To continue with Sir Oswyn's description:

In this way the scheme goes on growing in a tentative manner, its progress always being dependent upon the cooperation of numbers of separate departments, all intent upon ensuring the efficiency of different parts, until ultimately a more or less complete whole is arrived at in the shape of drawings and specifications provisionally embodying all the agreements. This really is the most difficult and interesting stage, for generally it becomes apparent at this point that requirements overlap, and that the best possible cannot be achieved in regard to numbers of points within the limits set to the contractors. These difficulties are cleared up by discussion at round-table conferences, where the compromises which will least impair the value of the ship are agreed upon, and the completed design is then finally submitted to the Board's approval. Some fourteen de-

partments are concerned in the settlement of the final detailed arrangements.⁹

The point which is so clearly illustrated here is that the planning procedure permits *expertise* of every kind to be drawn into the decision without any difficulties being imposed by the lines of authority in the organization. The final design undoubtedly received authoritative approval, but, during the entire process of formulation, suggestions and recommendations flowed freely from all parts of the organization without raising the problem of "unity of command." It follows from this that to the extent to which planning procedures are used in reaching decisions, the formal organization has relevance only in the final stages of the whole process. So long as the appropriate experts are consulted, their exact location in the hierarchy of authority need not much affect the decision.

This statement must be qualified by one important reservation. Organizational factors are apt to take on considerable importance if the decision requires a compromise among a number of competing values which are somewhat incompatible with each other. In such a case, the focus of attention and the identifications of the person who actually makes the decision are apt to affect the degree to which advice offered him by persons elsewhere in the organization actually influences him.

Our illustration of the warship throws into relief the other aspect of the planning process which was mentioned above: that the plan may control, down to minute detail, a whole complex pattern of behavior—in this case, the construction of the battleship down to the last rivet. The task of the construction crew is minutely specified by this design.

Review. Review enables those who are in a position of authority in the administra-

tive hierarchy to determine what actually is being done by their subordinates.

Review may extend to the results of the subordinate's activities measured in terms of their objectives; to the tangible products, if there are such, of his activities; or to the method of their performance.

When authority is exercised through the specification of the objective of the organizational unit, then a primary method of review is to ascertain the degree to which the organizational objective is attained—the results of the activity. A city manager, for instance, may evaluate the fire department in terms of fire losses, the police department in terms of crime and accident rates, the public works department in terms of the condition of streets and the frequency of refuse collection.

A second very important method of review is one which examines each piece of completed work to see whether it meets set requirements of quantity and quality. This method assumes that the reviewing officer is able to judge the quality and quantity of the completed work with a certain degree of competence. Thus, a superior may review all outgoing letters written by his subordinates, or the work of typists may be checked by a chief clerk, or the work of a street repair crew may be examined by a superintendent.

It has not often enough been recognized that in many cases the review of work can just as well be confined to a randomly selected sample of the work as extended to all that is produced. A highly developed example of such a sampling procedure is found in the personnel administration of the Farm Credit Administration. This organization carries out its personnel func-

⁹ The administration of a fighting service, *Journal of Public Administration* 1:216-217, July 1923.

tions on an almost completely decentralized basis, except for a small central staff which lays down standards and procedures. As a means of assuring that local practices follow these standards, field supervisors inspect the work of the local agencies and, in the case of certain personnel procedures such as classification, the setting of compensation scales, and the development of testing materials, assure themselves of the quality of the work by an actual inspection of a sample of it.

The third, and perhaps simplest, method of review is to watch the employee at work, either to see that he puts in the required number of hours or to see that he is engaging in certain movements which if continued will result in the completion of the work. In this case, the review extends to procedures and techniques rather than to the product or results. It is the prevalent form of review at the foremanship level.

To determine what kind of review method should be employed in any concrete administrative situation, it is necessary to be quite clear as to what this particular review process is to accomplish. There are at least four different functions which a review process may perform: diagnosis of the quality of decisions being made by subordinates, modification through influence on subsequent decisions, the correction of incorrect decisions which have already been made, the enforcement of sanctions against subordinates so that they will accept authority in making their decisions.¹⁰

In the first place, review is the means whereby the administrative hierarchy learns whether decisions are being made correctly or incorrectly, whether work is being done well or badly at the lower levels of the hierarchy. It is a fundamental source of information upon which the higher levels of the hierarchy must rely heavily for

their own decisions. With the help of this information, improvements can be introduced into the decision-making process.

This leads to the second function of review—to influence subsequent decisions. This is achieved in a variety of ways. Orders may be issued covering particular points on which incorrect decisions have been made or laying down new policies to govern decisions; employees may be given training or retraining with regard to those aspects of their work which review has proved faulty; information may be supplied them, the lack of which has led to incorrect decisions. In brief, change may be brought about in any of the several ways in which decisions can be influenced.

Third, review may perform an appellate function. If the individual decision has grave consequences, it may be reviewed by a higher authority to make certain that it is correct. This review may be a matter of course, or it may occur only on appeal by a party at interest. The justification of such a process of review is that (1) it permits the decision to be weighed twice, and (2) the appellate review requires less time per decision than the original decision, and hence conserves the time of better-trained personnel for the more difficult decisions. The appellate review may, to use the language of administrative law, consist in a consideration *de novo*, or may merely review the original decision for substantial conformity to important rules of policy.

Fourth, review is often essential to the effective exercise of authority. Authority depends to a certain extent on the availability of sanctions to give it force. Sanctions can be applied only if there is some means of ascertaining when authority has

¹⁰ A somewhat similar, but not identical, analysis of the function of review can be found in Sir H. N. Bunbury's paper, *Efficiency as an alternative to control*, *Public Administration* 6:97-98, April 1928.

been respected and when it has been disobeyed. Review supplies the person in authority with this information.

Decision making is said to be centralized when only a very narrow range of discretion is left to subordinates; decentralized when a very broad range of discretion is left. Decision making can be centralized either by using general rules to limit the discretion of the subordinate or by taking out of the hands of the subordinate the actual decision-making function. Both of these processes fit our definition of centralization because their result is to take out of the hands of the subordinate the actual weighing of competing considerations and to require that he accept the conclusions reached by other members of the organization.

There is a very close relationship between the manner in which the function of review is exercised and the degree of centralization or decentralization. Review influences decisions by evaluating them and thereby subjecting the subordinate to discipline and control. Review is sometimes conceived as a means of detecting wrong decisions and correcting them. This concept may be very useful as applied to those very important decisions where an appellate procedure is necessary to conserve individual rights or democratic responsibility; but, under ordinary circumstances, the function of correcting the decisional processes of the subordinate which lead to wrong decisions is more important than the function of correcting wrong decisions.

Hence, review can have three consequences: (1) if it is used to correct individual decisions, it leads to centralization and an actual transfer of the decision-making functions; (2) if it is used to discover where the subordinate needs additional guidance, it leads to centralization through the promulgation of more and

more complete rules and regulations limiting the subordinate's discretion; (3) if it is used to discover where the subordinate's own resources need to be strengthened, it leads to decentralization. All three elements can be, and usually are, combined in varying proportions in any review process.

SUMMARY

We may now briefly retrace the path we have traveled in the preceding pages. We have seen that a decision is analogous to a conclusion drawn from a number of premises—some of them factual and some ethical. Organization involves a "horizontal" specialization of work and a "vertical" specialization in decision making—the function of the latter being to secure coordination of the operative employees, expertness in decision making, and responsibility to policy-making agencies.

The influence of an organization, and its supervisory employees, upon the decisions of the operative employees can be studied by noting how the organization determines for the operative employee the premises—factual and ethical—of his decisions. The organization's influence is a matter of degree. As we travel from top to bottom of the administrative hierarchy, we note a progressive particularization of influence. Toward the top, discretion is limited by the assignment of broad objectives and the specification of very general methods; lower in the hierarchy, more specific objectives are set, and procedures are determined in greater detail.

Within the limits fixed by his superiors, each member of the organization retains a certain sphere of discretion, a sphere within which he is responsible for the selection of premises for decision. For the most part, this sphere of discretion lies within the factual area of the decisional process rather

than within the area of values; but the individual's decision is not "free" even within the area of discretion, in the sense that his superiors are indifferent what decision he will make. On the contrary, he will be held for the correctness of his decision even within that area.

There are at least five ways in which influence is exerted over the individual: (1) authority, (2) identification, (3) the criterion of efficiency, (4) advice and information, and (5) training. To a large extent, these are interchangeable, and a major task of administration is to determine to what extent each will be employed. The structure of influence in an organization and the lines of communication are far more complex than the structure of authority. In designing an organization, it is not enough to establish lines of authority; it is equally

important to determine the ways in which all forms of influence are to be exercised.

Two organizational processes are of particular importance to decision making: planning and review. Planning permits the control of decisions in very great detail and permits all the available *expertise* to be brought to bear on a particular decision, with little concern for the lines of formal authority. Review is a source of information to the administrative hierarchy, a means of influencing subsequent decisions of subordinates, a means for correcting decisions on important individual matters, and a means for enforcing authority by determining when sanctions need to be applied. Depending upon the way in which they are employed, review processes may lead either to the centralization or to the decentralization of decision making.

2. So You Think You Have Authority, by Ray E. Brown*

"THE board of trustees cannot give authority—no one can give authority." That was my rather startling reply to a complaint of a fellow administrator some time ago. Fearing that he might pronounce me a Nihilist I carried the thought further. This article is concerned with the reasoning behind such a statement.

If, as administrator, I tell Mrs. Goode, the dietitian, that the silver should be polished each week and the silver is well polished each week, it is apparent that authority exists. Two things took place—an order was given and an order was accepted. The acceptance of the order was proof of the authority.

Giving of orders, then, does not compose authority. Authority is the ability to have orders accepted and performed. It is the ability to govern what is done, or is not done, and the manner and extent to which

it is done. The thoroughness with which orders are carried out is of most importance.

By now it might seem that I have confused power with ability and that authority represents the power to say what is done. Such confusion of power with authority has resulted in the failure to realize that authority must be developed in an organization. This failure has resulted in the failure of the persons in power. They have depended on their title to create authority for them when it could only give the right to originate orders and, far worse for them, the responsibility of having orders performed.

No matter how much the board of trustees might support the administrator and the administrator might, in turn, support

* Adapted from *Mod. Hosp.* 60:61-62, May 1943.

the department heads they can only provide the right to give orders and the power of dismissal. Admittedly, these rights are essential to the creation of authority but they must be regarded only as conditions precedent to the development of authority. Which order will be obeyed or disobeyed is decided by the person to whom the order is given and not by the person who issues it.

The discharge or, conversely, the resignation of an employee is but final proof that the power to decide as to whether authority exists rests with the individual of whom performance is demanded. At times individuals choose to give up jobs rather than perform tasks which for some reason they do not see fit to perform.

The exit interview brings out such statements as: "I just can't work for that man," or "She just doesn't know what she wants," and "They didn't tell me that I had to do that when I started working here." These remarks are meaningful and go far to explain disorganization from lack of authority within departments.

Termination of employment, however, is the rare rather than the common result. If all orders were fully performed or completely refused the problem would be simplified. The great harm comes from relative degrees of performance. The floor cleaner accepts the order to mop the floor—but look at the floor when he has finished. The nurse gives care to her patients—but what sort of care? Mrs. Goode's kitchen boy polishes the silver—but how well and how fast? These things not only give the administrator gray hair but give the hospital a name.

If acceptance and performance of orders determine authority and the decision to perform and the extent of performance can be made only by the person to whom the order is given, then good administration is dependent upon the issuance of or-

ders that are capable of being fully accepted and performed. This fact must be recognized.

The purpose of any organization is to function and it is only by the performance of tasks outlined through orders that the organization does function. The manner in which tasks (orders) are performed is the measure of the hospital in action.

Assuming that the order is a good one, what are the characteristics that determine whether it will be efficiently carried out? Bearing in mind the danger of oversimplification of the complex problem of executive control, and again acknowledging the greater importance of proper policies, I list six characteristics that are necessary before orders can be fully performed. These are the six requisites of all orders if authority is to be developed.

1. The order must be consistent with the personal interests of the person who is given the order. When Mrs. Goode returned to the kitchen to ask someone to polish the silver she didn't ask the head cook to do it. Not because he couldn't polish silver but because she knew that he probably wouldn't. If he had done the work, the chances of its being done satisfactorily would have been slight and the resentment created would have materially affected future performance of his cooking duties. With this in mind she no doubt assigned the work to an employee of lower status.

Here again there could be complications. If the silver polishing required overtime work, adjustments in pay or duties might be called for. If it meant overburdening this worker in relation to the jobs of the other workers, a feeling of imposition would hurt the efficiency of all tasks that this worker was supposed to perform. Conflicts between personal interest and the job can explain many conditions of inefficiency.

2. The person to whom the order is given

must be mentally and physically able to carry it out. If, by a stretch of the imagination, Mrs. Goode had delegated the silver cleaning task to the head cook and then told the dishwasher to handle the head cook's duties, a like stretch of the imagination is not needed to know the results.

No matter how much the dishwasher might have wanted to carry on the duties of the head cook there was small chance of his doing so efficiently. Many questions of job specification and employee qualification are instantly recognized. It is surprising how many of our problems arise from disregard of this point.

3. The order must be understood. This is so self-evident as to appear silly when listed. But do we always make our orders as clear as necessary and satisfy ourselves that they are understood? This is answered by the number of times employees complain that they "didn't know you meant that." And don't believe that such remarks are always alibis.

4. The order must appear to the person who receives it to be consistent with the general purpose of the organization. If Mrs. Goode's dishwasher had been ordered to polish the silver following each meal the boy would have been dumfounded. One polishing a week would appear reasonable for the needs of the hospital but three times a day wouldn't make sense. No work is done satisfactorily unless it does make sense. The number of questions employees ask each other concerning work going on in various parts of the hospital have a meaning deeper than idle curiosity—they are a part of the eternal effort of everyone to adjust himself to the work and to attempt to make the parts fit into a whole.

Several administrators have realized this fact and have issued booklets to employees in an effort to acquaint them with the general purposes of the hospital and the way

each department fits into the total picture. Often when methods or policies are radically changed, administrators are forced to have employee meetings and explain new policies so that no imaginary conflicts between purpose and orders will appear.

It is the same idea of general purpose that allows the continuity of work from task to task and from day to day. Many tasks are done without orders because they need to be done according to the employee's idea of the general purpose of his job and his department.

5. The manner in which the order is given must not have a negative effect upon the performance of the order. There is a carload of psychology here. Did an employee ever tell you, "I want to be transferred; that supervisor is too busy"? Did you ever hear this one: "He lets a little authority go to his head"? Did you ever consider why employees don't get along at all in one department and then go like a house afire when transferred to another?

6. The order must place definite responsibility for its performance. Everybody's duty is nobody's duty and division of responsibility will always mean division of efficiency. If Mrs. Goode had attended to the silver polishing order by simply announcing to the kitchen force that henceforth the silver was to be polished each week she would have accomplished little more than expressing a wish—there would have been little luster added to the silver. All of us have a tendency to shirk responsibility and when there is a certain amount of exertion thrown in the tendency becomes overgrown.

Responsibility not only is important for use in placing blame but serves an equally vital purpose in giving praise. Much support can be given for the latter as being of decidedly larger consequence as an incentive to performance. Recognition often, per-

haps too often in our low-paying hospital field, complements wages as a means of reward for efficient service. But whatever the relative merits of praise or blame, we do know that there is great incentive to do careful and energetic work when praise and blame can be accurately placed. Orders, like parcel post, go further if addressed to someone.

These are the characteristics necessary in orders if they are to be efficiently per-

formed. A job is the total of orders concerning and outlining one worker's duties, and the amount of authority held by the supervisor is measured only by the manner in which duties are performed. Of course, the development of authority must be preceded by the right to issue orders and the power of dismissal, but to possess power is not the same as to possess authority, for as the late Justice Brandeis said, "Efficiency is present only when there is acceptance."

3. The Role of Communication Systems in the Process of Administration, *by John J. Corson**

I

THE effective administration of any organization requires agreement upon a common objective, as well as a common and continuing understanding of the problems and accomplishments experienced in the day-to-day pursuit of that objective. But can the administrator devise and then use effectively means of communication¹ that enable him to project his leadership in words to the most remote of his employees and simultaneously to bring back, in words, their daily operating experience?

This problem may be restated in terms of the three principal purposes for which the administrator formulates and uses means of communication: (1) to convey instructions and policy decisions down the line of authority, (2) to transmit to the administrator the reports, suggestions, and experiences of employees at each vantage point of operating experience, and (3) to create a common understanding of the group purpose.

Statement of the first of these three purposes brings to mind immediately the customary means of conveying instructions and decisions: through the oral statements of a superior to a subordinate, through memoranda, through general "bulletins,"

"field letters," "directives," or "administrative instructions." Through such means an administrator directs the work of those men and women for whose activities he is responsible. In the language of the technician, communication to accomplish this purpose is called "the flow of command." But what determines whether the command will flow effectively? How can the administrator be assured that his words will convey the precise ideas he intended as they are interpreted and reinterpreted by each successive "layer" or "echelon" in the administrative hierarchy?

The difficulty of conveying instructions or decisions to decentralized field operations is perhaps the most common illustration of this problem. Making decentralization work is primarily a problem in communication, for the chief pitfall of geographical separation in administration is disparity in the interpretation of instructions and in the application of decisions. Every group of individuals develops an

* Adapted from *Pub. Administration Rev.* 4: 7-15, Winter 1944.

¹ Communication is here considered only as it relates to the internal administration of an organization, and not as it concerns the agency's relations with its clientele, the Congress, or the general public.

esprit de corps which is more than a collective loyalty to the immediate group as opposed to loyalty to a distant central office; it is a different approach to, and interpretation of, the whole job. Most of the group's instructions and information come *via* written communications. These are interpreted in the light of the group's own peculiar character. The leavening effect of continuous contact with all sections of the central organization, always at work in the case of central office personnel, is absent. Furthermore, the intermediate stages through which commands must pass from the central office on their way to the field office inevitably cause some distortion in the ideas communicated.

To obtain in words from employees their experiences is not merely the reverse of the downward flow of command. It includes the customary process of having employees prepare periodic reports on the work they have accomplished. But it may also include the "positive process" of obtaining from employees their ideas, suggestions, and statements of operating experience. Employee suggestion forms, "suggestion boxes," and staff meetings are among the devices used to stimulate this positive type of reverse communication. Upon the effectiveness of such a positive type of reverse communication depends the extent to which administrative procedures and practices will continually be adapted on the basis of day-to-day operating experience.

Yet, mention of suggestion forms or boxes evokes in many administrators' minds thoughts of their usual ineffectiveness. That employees, as well as administrators, lament the frequent ineffectiveness or absence of such devices for reverse communication is illustrated by the response of a worker when Vice-President Kettering of the General Motors Corporation, addressing a group of shop workers, re-

marked that it required two years for a decision of the board of directors to find its way down to application in the shops. A worker sarcastically rejoined, "And how long does it take for an idea of one of the men in the shops to find its way up to the board of directors?" Moreover, the "pulling up" of information and ideas from employees is handicapped by distortion just as is the flow of command downward. As the ideas of many employees are assembled and summarized for the review of the top administrator they suffer a distortion alike in significance even if different in character.

The third purpose for which communication is utilized is that of providing all employees with an understanding of the organization of which they are a part and its objectives. In our armed forces the provision of such information to new recruits is described as "indoctrination"; civilian public administrators have usually described it as "in-service training." In either area, the background information communicated is customarily made up of three types. First, there is the information that will convey to all members a common understanding of the organization's purposes and objectives. The larger an organization the more essential is the effort to explain to each of its employees the purpose for which it is established. The second type of background material that must be communicated to the staff is informational detail regarding plans and prospective actions.² Such material is issued primarily to provide a fertile ground upon which may fall subsequent operating instructions and directions. The third type of material includes all those facts and data that relate

² One agency of the Federal Government issues to all field personnel an informal weekly bulletin describing policy questions under consideration by the headquarters staff, entitled, *What's Cooking!*

the individual's job to the whole and the activities of the subdivision in which he works to other parts of the organization. It is easy for the job of any employee in a large organization to become dissociated from the larger purpose of the organization. Then, too, small insulated groups representing the interests of particular operating divisions tend to develop in most administrative units. These disintegrating influences may be combatted by making a report to the employee of the achievements resulting from the integrated effort of the organization and of the problems arising from the lack of such integrated effort. If the employee's sense of the whole is thus enhanced and he is made aware of the relationship of his contribution to the success of the entire agency, his individual performance and that of the agency may be improved. A typical instrument that is used for this purpose is the "house organ"; it may take a variety of forms, but to attain its purpose it must include carefully selected data on organization achievements and problems, as well as the customary personal information about employees and announcements of recreational activities.

II

In varying degrees and in different forms each administrative organization—a private corporation, a bureau of the Federal Government, a municipal department, or the Army—will use, consciously or unconsciously, some means to accomplish each of these purposes of communication. A description of the means of communication in a typical bureau of the Federal Government may suggest (1) customary methods by which these purposes are accomplished, (2) the significance of communication media to the administrative success of such an agency, and (3) ways and means of combatting communication problems fre-

quently encountered. By way of illustration, the processes of communication within the Bureau of Old-Age and Survivors Insurance of the Federal Social Security Board will be described. They are not depicted as a model or even as an integrated system of communications. Rather, they afford a picture of the number and type of communication media used by a typical agency of the Federal Government.

The Bureau of Old-Age and Survivors Insurance was organized by the Social Security Board in 1937 to administer Title II of the Social Security Act. This title established a nation-wide system of old-age insurance (subsequently, in 1939, amended to add survivors insurance)—a form of social insurance not previously known as a governmental service in this country, either to the citizens to be affected by it or to the men and women to be recruited to administer it. The administrative job assumed by this bureau necessitated the establishment of a nation-wide network of field offices to deal with the employers and employees affected by this legislation. In October 1943, this bureau consisted of approximately 8,300 employees—4,500 in the central office and 3,800 in more than 440 offices located in the major cities and towns throughout the United States. The task performed by these thousands of employees is indivisibly integrated around the claim for insurance payments filed at one of the hundreds of field offices by a retiring worker or by the widow of a deceased worker. A lifetime record of each insured worker's wages is maintained centrally in Baltimore. When the claim is filed, this record must be dispatched to the field office to be associated with the claimant's application for payments and then forwarded to one of five geographically decentralized area offices where the claim is finally adjudicated on the basis of the wage record and certified

for payment. The effective handling of thousands of claims each day requires a precise integration of the activities of a number of employees about each individual claim. The need for uniformity of action is more imperative than in most agencies. The administration of such a system of benefits entails the most careful attention to uniformity of decision, for the justice with which claims are adjudicated is a most important criterion of successful administration. How is such integration of the activities of thousands of employees brought about?

Day-to-day instructions are communicated through conferences or through written memoranda between the director and one or another of the five assistant directors. Such personal contacts are supplemented by weekly staff meetings of the ten "top-flight" officers of the bureau, who jointly decide questions of policy. In turn, these decisions are communicated down through each successive layer in the organizational hierarchy. The communication of the more important decisions is facilitated by semi-monthly conferences attended by all division, section, and unit chiefs in the central offices (a total of about fifty), at which especially significant decisions are interpreted and discussed.

Typical policies considered by this executive staff of the bureau will deal with the application of court decisions affecting the disposition of claims for widow's insurance benefits, prescribed methods of handling specific types of claims for benefits, the training of personnel in field offices, and the formation of the annual budget for operating expenses. Such policies, however, are not formulated *de novo* in the insulated confines of a staff conference room in this bureau or in the typical administrative agency. The operating budget, which is eventually accepted or revised by this ex-

ecutive staff, already reflects the suggestions and views of numerous employees whose recommendations were solicited in the course of its preparation. Similarly, a policy considered by the executive staff to govern the training of supervisors was considered only after outlines had been sent to representative supervisors for comment and criticism and had been revised in accord with some of the suggestions received. Again, a personnel policy statement governing the promotion of field-office managers was submitted to field-office managers in three separate geographical areas for review and was rewritten in the light of their criticism before final consideration. The materials eventually released undoubtedly profited from the suggestions obtained, the individuals consulted gained a sense of participation, and the operating objective finally decided upon was more generally understood.

The policy decisions and instructions thus developed are formally communicated to the employees throughout this bureau by two principal series of publications. The first of these is known as the *Regional and Field Letter*. Issued weekly to regional and field offices of the Social Security Board, it carries formal instructions and policy decisions. Its weekly copies are retained in each field office in appropriate loose-leaf subject manuals. The second series of publications is known as the *Director's Bulletin*. This is published at irregular intervals as the subjects warrant. Perhaps the most important of these bulletins are those issued each December and June presenting to all employees, in an illustrated, readable form, the bureau's operating program for the succeeding six months. These bulletins are used as a basis for staff meetings in each section and unit in which supervisors and employees discuss the objectives and plans included in the program in relation to their

respective units. Other bulletins contain a variety of materials pertinent to the work of the bureau, ranging from the bureau's recent progress in expediting the payment of claims to beneficiaries, to extracts from a newly published book on management or the analysis of legislation introduced in Congress that would affect the old-age and survivors insurance program. All such bulletins are drafted in an informal style and are designed to provoke employee discussion. Two other series of printed materials that are forwarded to all field employees are *Administrative Orders*, dealing with general policies, principally regarding personnel, issued respectively by the Social Security Board and the Federal Security Agency.

Routinely, throughout the past five years, the bureau has held two series of conferences to bring field and central-office personnel together for discussion of current operating problems and policies. Once each year, the field-office managers in each of twelve regional areas meet together in the regional office with the principal central-office officials and their regional supervisors. Their meeting covers three days during which they discuss recently issued policy decisions and instructions, current operating problems that are anticipated, changes in procedures, and amendatory legislation. Similarly, once each month a group of approximately twenty field-office managers, representing each of the twelve regional areas, meet at the central office with the director and his executive staff to go over, in round-table discussions, changes in the organizational structure of the bureau, changes in central-office practices and procedures that affect the work of field employees, studies being made in anticipation of legislative recommendations, and such current operating problems as perplex the individual field representatives. At these

conferences, time is regularly set aside for a tour of the central office, especially the vast mechanical record-keeping operations of the bureau. Both types of conferences bring together employees from the highest and lowest levels in the administrative hierarchy of the bureau and permit the cross-exchange of views and opinions without regard to intervening levels in the hierarchy.

Partly because old-age and survivors insurance is a new and little understood field of governmental activity, and partly because of the technical nature of its operations, a comprehensive program of training for all grades of employees has been carried on since the bureau's origin. Old-age and survivors insurance is not insurance in the traditional use of that term, and it is as definitely not relief. Hence, those who administer it do not practice the traditional trades either of the insurance salesman or of the social worker. No readily available source of men and women possessing a clear understanding of this new governmental function and its methods is to be had. Hence, all employees who are appointed at salaries as great as \$1,800 per annum are required to attend a six-week training course dealing in detail with the origin of, the economic basis for, and an analysis of the provisions of the Social Security Act. All employees recruited for clerical, stenographic, or messenger positions are required to attend a one-day staff induction session at which they are told of the work and organization of the bureau. This is followed at the end of a six-month period by a series of thirteen lectures designed to acquaint the employees with the objectives of the old-age and survivors insurance program and its economic and social significance. Both groups are presented a visual picture of the work of the entire bureau through a motion picture

designed to portray the interrelationships of the work carried on in each subdivision of the organization. Subsequently, after employees have entered upon their respective assignments, they are encouraged to participate in "in-service training" in the analysis of their own jobs, in supervisory practices, or in the theory and philosophy of social security. Training is a continual process designed to improve the efficiency of the individual employee, to encourage him to suggest ways and means of doing his own and other tasks better, and to develop his understanding of the whole organization of which he is a part.

Here, then, is a picture of the communications system (or lack of system) of a relatively typical governmental unit. But how effectively does this combination of means of communicating ideas and words throughout the group (1) convey instructions and policy decisions, (2) elicit and transmit the experiences of employees to the management, and (3) create a common understanding in all employees' minds of the group purpose? Do the methods used facilitate or impede effective administration? And what factors determine the effectiveness and usefulness of each method?

III

Students of administration have not yet formulated the principles of organizational communication that would make possible an effective answer to these questions. But it is possible, at least, to indicate some relative advantages and disadvantages of the principal media of communication. First, consider those media of communication that rely on the oral or spoken word—face-to-face conferences of operating officials, staff meetings, committee meetings, conferences between central-office and field-office officials. Direct oral conversation is

the usual means of communicating commands or instructions from supervisor to subordinate. It is a familiar method and provides opportunity to clear up obscure points, to facilitate mutual understanding, and to develop mutual confidence. Most situations requiring positive action to improve employee morale are more effectively dealt with by direct personal contact. Problems in coordination between hierarchical equals or between agencies are frequently best handled by face-to-face conversations, since such horizontal coordination depends largely upon personal reactions.

Oral communication, however, is readily perverted by human idiosyncrasies. The executive, for example, who is often unavailable to discuss problems with his subordinates effectively closes the channel of oral communication. They must write memoranda or simply settle the matters themselves. His customary inaccessibility discourages the use of oral communication. Similarly, the executive with the best intentions regarding staff contacts cannot depend upon oral communication if he has so many subordinates reporting directly to him as to make it quite impossible for any of them to have sufficient time with him to transact essential matters. As a consequence, some executives use staff assistants whose sole function is the oral communication with subordinates which has become impossible for the executive himself. The idiosyncrasies of the human beings by whom oral communication is relayed from top administrator down the hierarchical structure inevitably distort the meaning of the instruction or decision originally given by the top administrator as it passes from mouth to mouth. Unconsciously, each person in the hierarchical line rephrases and interprets the instructions given him as he, in turn, passes them on to his own subordinates. The result is that many an ad-

ministrator, viewing the application of his decision by employees at the other end of the hierarchical line, ruminates sympathetically on the story of the playwright who could not believe that the drama enacted upon the stage, after it had been adapted and interpreted by editors, stage producers, and actors, was actually his own production.

The larger and more subdivided an administrative organization becomes the more impossible it is to rely upon oral communication to create the essential community of understanding between the person who has the top responsibility and the man on the job. Oral methods must then be supplemented by the written word.

The written word enjoys a tremendous popularity among the governmental fraternity, but memoranda, notes, releases, and printed documents are ubiquitous in any large organization. In the busy life of an executive there is nothing like a nice memorandum to dispose of a problem—for the time being and for better or worse. Yet our naïve confidence in written communication is based upon the belief that the English language means the same thing to all people at all times. The truth is that English, admirable medium as it is for the speeches of Churchill, the novels of Hervey Allen, or the lyrics of Shelley, is not an ideal vehicle for exact statement to secure identical understanding by any considerable number of persons. As Justice Holmes pointed out, "A word is not a crystal, transparent and unchanged, it is the skin of a bony thought and may vary greatly in color and content according to the circumstances and the time in which it is used."

Written words entail two limitations as a means of communicating within an administrative organization. First, unless the words are used carefully and precisely, there can be no assurance that all members

of the administrative organization will interpret the sentences or paragraphs identically. A classic illustration of the ineffectual use of written words is given by General James G. Harbord in his book, *American Army in France*, in which he quotes (pp. 455-456) the following order issued near the close of World War I.

Memorandum for commanding generals,
First Corps, Fifth Corps.

Subject: Message from Commander-in-Chief

1. General Pershing desires that the honor of entering Sedan should fall to the First American Army. He has every confidence that the troops of the First Corps, assisted on their right by the Fifth Corps, will enable him to realize this desire.

2. In transmitting the foregoing message, your attention is invited to the favorable opportunity now existing for pressing our advance throughout the night. Boundaries will not be considered binding.

By Command of Lieutenant-General Liggett:

H. A. DRUM
Chief of Staff

General Pershing is quoted by Major-General Harbord as having said that misinterpretation of the last sentence of this order—"Boundaries will not be considered binding"—by the Fifth Army Corps resulted in its being sent on a futile errand, in executing which it crossed French artillery fire, sustained about five hundred casualties, and "marched itself to exhaustion."

Second, written words, even when used with care and precision, are subject to varying interpretations in accord with the varying experiences and backgrounds of those who receive them. This limitation is similar to the distortion that accompanies the conveying of oral words from superior to subordinate, or vice versa, through the hierarchical line. Each individual places upon the words, even though precisely

used, that meaning which is implied in the light of his personal experiences and background.

Yet, any administrative organization consisting of more than a handful of employees must inevitably use the written word in communicating instructions, information, reports of progress, and a variety of other materials to all personnel. Interpretations of law, rulings, and decisions require formal, authoritative statements. Hence, most agencies of government will have their manuals or volumes of "orders," "opinions," "regulations," or "rulings." For communications that involve the necessity of a permanent record and accurate statement or that deal with complex or detailed subject matter, the written word is obviously the best or only available medium. The size of an organization may be such as to prevent oral communication and make necessary the use of written materials for communicating even informal general statements in other instances. Hence, effective administration leans heavily upon the arts of precise, simple expression and careful, skillful editing for the transmission without distortion of command, information, and objective. The editor of day-to-day bulletins, orders, and regulations may play a far more important role in administration than students of the science have yet recognized.

Two other media of communication, less often recognized than the spoken or the written word, play a part in the development of understanding within any administrative group. These media are visual materials and the social environment within which members of the group live as well as work.

To permit employees to "see" what they do in relation to the activities of related organizational parts is a particularly effective

way of achieving coordination. Field employees who are able to visit the central offices and to see at first hand the individuals with whom they communicate daily and the processes they perform will likely be better able to perform their own tasks. Central-office employees who have themselves performed the agency's processes in the field, in contact with the public the agency serves, may better perform their more abstract functions in the future.

A six-month operating program or even a daily instruction may be made clearer, or at least claim the attention of more employees, if illustrated than if presented in unadorned text. Bulletins prescribing operating procedures by means of detailed, step-by-step descriptions may evoke a higher degree of common understanding when accompanied by flow charts that enable employees to visualize the steps and relationships. Perhaps the oldest type of visual material used to accomplish administrative ends is the organization chart, which acquaints the staff with the chief functional and scalar relationships between various organizational subdivisions. The use of short movies and slide-films to depict organizational relationships is a modern adaptation of the older, conventional "still" organization chart. Finally, graphs and charts illustrating pertinent statistics will play a prominent part in the development of a general understanding throughout an administrative group of accomplishments and progress, as well as convey this information to the top administrator himself.

The social environment within which an administrative group works may more often be construed as a handicap to the development of a common understanding within the group than as a medium of communication. Yet, that it is a means

through which members of the administrative group form their opinions of the objectives and purposes of the agency must be clear. The effect of the social environment is especially great in those governmental agencies that undertake the administration of new governmental services. Consider the Office of Price Administration, for example. Do its thousands of employees formulate their views on the objectives and purpose of the agency as a result of administrative communications or on the basis of the comments of their neighbors and the daily newspapers? The War Production Board is created to perform governmental functions unknown in peacetime. Its staff is made up of men and women recruited in principal part from a variety of private enterprises. Yet will their views or the nature of the social function they perform be moulded more by their previous experiences than by the prolonged and arduous efforts of administrative officials to create a common understanding of objective? The National Labor Relations Board is another example of a governmental agency engaged in the administration of new and as yet controversial functions. Even on the assumption that the board recruits its personnel carefully with a view to employing, insofar as possible, only persons sympathetic to the purposes of the legislation they are to administer, is it not likely that its administrative officials have a substantial task in overcoming traditional attitudes when endeavoring to create an understanding, articulated group? On the other hand, those agencies of government engaged in the administration of older, well-known governmental services, such as the postal service, may find that the social environment in which the men and women it recruits have lived has endowed them with a basic understanding of

the objectives the group seeks, or at least makes the creation of such a basic understanding simpler.

IV

The significance of communication to the effectiveness of the administrative processes seems clear. An organization in which the channels of communication facilitate the transmission of ideas may be likened to the industrial plant in which electricity carries power to innumerable remote points simultaneously. In contrast, an organization with ineffective communication may be likened to the old water-driven factory where power was transmitted from cog to cog to cog. Yet in none of the literature on administration are the communicating processes thoroughly described and evaluated. Gaus and Wolcott, in *Public Administration and the United States Department of Agriculture*, devote little attention to the efforts of that department to establish a common understanding of departmental and bureau objectives. MacMahon, Millett, and Ogden touch upon a single phase of the problem in their study of *The Administration of Federal Work Relief* in a chapter on "The Flow of Command." More adequate recognition of the problem is to be found in *Bureaucracy and Trusteeship in Large Corporations* (Monograph No. 11 of the United States Temporary National Economic Committee's series, "Investigation of Concentration of Economic Power"). There Dimock and Hyde discuss the importance of communication as a device to facilitate administrative actions and emphasize the relationship between the difficulties of communication and the size of the organization. Chester I. Barnar in his *The Functions of the Executive*, while regarding communication principally as a factor in the "flow of com-

mand," attempts to tie it into the picture of the administrative process, remarking, "In an exhaustive theory of organization, communication would occupy a central place, because the structure, extensiveness, and scope of organization are almost entirely determined by communication techniques."

Students of administration in the future may find it fruitful to appraise and dissect the methods of communication used in diagnosing administrative ills. What do we know of the relative efficiency of the verbal versus the written use of words? What is the distortion ratio in instructions communicated by tongue and instructions

communicated by printed type? Is it necessary to find means of communication that avoid the organizational hierarchy and permit direct access between top management and the most remote employee? The lack of ready answers to such questions may suggest that the science of administration as thus far developed may provide better guides for the management of men, money, and materials than for the utilization of words in the attaining of administrative ends. In the use of words to communicate ideas, instructions, and commands precisely and exactly, administrators have a long way to go before they get beyond the Humpty-Dumpty stage.

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CHAPTER VII. THE HOSPITAL ADMINISTRATOR

I. Selection of the Administrator, by *Malcolm T. MacEachern, M.D.**

THE extreme difficulties which hospitals are having in these times of war in connection with personnel, materials, and meeting extra demands for service, focus attention upon the great importance that should be attached by the governing board to the selection of an able administrator. Excessive loss of personnel for reasons other than military service may frequently be traced to weak administration—inability to win the loyalty of employees. Excessive difficulty in obtaining needed materials may likewise be due to the administrator's failure to present convincingly to the proper authorities the reasons why priorities should be granted. Excessive confusion in handling increased numbers of patients may also be the administrator's fault—he may be the type who is slow to adapt himself to changed needs and to take emergency measures to keep the work to the necessary more rapid pace.

In selecting an administrator, it must be realized that the governing board should appoint a person who is able to wield executive authority. The trustees, as a whole and as individuals, relinquish to him the right to deal directly with any other person or department in the hospital. The duties of the governing body are performed through the administrator, and therefore the trustees must have a good general understanding of the duties and responsibilities as a basis for judging the suitability of a person who is under consideration for the job. My first remarks will, therefore, be concerned with the nature and scope of the task of administering a hospital, from which I shall proceed to

discussion of qualifications, and conclude with suggestions about how to go about getting an administrator and the techniques of employment and of getting him well started on his work of directing the operation of the hospital. I think that careful study of the administrator's job before he is employed will be helpful in gaining the understanding essential to the support which the trustees should afterward give him.

In considering the nature and scope of hospital administration, the first question that comes up is the relation of the administrator to the governing body.

This relationship should be well defined. It may be stated as follows: The governing body entrusts the director with the execution of all policies which it may establish and depends upon him to administer the hospital efficiently in all departments and to furnish whatever information may be desired. The director is held responsible to the governing body for moneys received and expended, and he is the medium through which all dealings among the governing body, the medical staff, and the personnel are transacted. The whole relationship may be summed up as one of cooperation and coordination. Through the administrator the medical staff is responsible to the governing body for the clinical and scientific work of the hospital and may be called upon to advise regarding professional problems and policies.

The governing body, although it has ultimate responsibility and must determine all policies and be kept informed of all

* Adapted from *Hospitals* 17:37-42, May 1943.

results, must delegate the actual management of the hospital to the administrator. The governing body will expect him to attend all of its meetings, including committee meetings, in order that he may sense the intent behind certain policies as well as learn about the stated policies which he is to carry out. He will further be expected to prepare and submit a budget for approval, which will show the estimated receipts, giving an idea as to the deficit expected from free work and advising of the amount that must be raised from sources outside ordinary revenue. He may be required to assist the governing body in raising funds, by preparing statements for general circulation or even by taking part in campaigns and similar means of raising money.

Other duties of the administrator relative to the governing body are to show in the budget the expected expenditures in detail, in order that it may empower him to expend funds for the purposes stated and, if necessary, to make transfers from one department to another. He is made responsible for employment and within the limits of the budget fixes all salaries and has full authority to employ and discharge. He is expected to report periodically in writing to the governing body, usually monthly and yearly, summarizing achievements and outlining future plans.

In his reports to the governing body, the good administrator will call attention to all matters that are undesirable, and will suggest remedies. He will have a highly developed critical faculty that will make him eager for the cooperation of the trustees in making improvements. He will recommend changes in construction, additions to equipment not provided for, changes in the medical staff, and other matters which are beyond his personal authority. To him the trustees delegate the

supervision of planning and construction when alterations or additions become necessary. He should be able to give the architect the ideas which he is expected to carry out, or at least to criticize and correct the sketches submitted by the architect.

The administrator has certain general duties within the hospital which the trustees should fully understand.

Collaboration with the medical staff is one of the most important duties of the administrator. In this he must be motivated by a desire to have the patient restored to health as quickly, safely, and comfortably as possible. Certain other duties of a coordinating nature are related to this objective.

In the first place, the administrator must transmit and interpret the policies laid down by the governing body to the medical staff and personnel, and in turn must transmit their ideas and wishes to the governing body. He acts as a liaison officer.

In the second place, the administrator must coordinate the activities of the medical staff and of the departments staffed by the personnel. It is his duty to provide that the orders given by the attending physician to the resident medical staff, heads of departments, nurses, and all others concerned with the care of patients, be carried out unless they are in direct violation of the policies laid down by the governing body.

In the third place, the administrator must coordinate the efforts of the departments within the organization so as to prevent any clashing of interests or overlapping of time and effort. He accomplishes this coordination largely through the device of standing orders which he issues to establish fixed routine whenever possible. Standing orders are of two classes—one deals with the professional care of patients, the other with administrative affairs.

Provision of proper facilities for all de-

partments, within the limitations of the building and its possibilities of rearrangement, is the responsibility of the administrator. He decides upon replacement and modernization after conferences with the head of the service concerned, subject to the approval of the governing body, when major equipment or extensive alterations are indicated.

Of course the administrator selects all department heads and delegates parts of his responsibility to assistants or selected heads of departments. The extent to which he can delegate responsibilities depends largely upon the size of the hospital, and, in any case, his is the ultimate responsibility. As a part of his duties in connection with personnel, he assures himself of their physical fitness by arranging pre-employment and periodic physical examinations; arranges for care in case of illness; interests himself in promoting recreation and amusement for the personnel and in encouraging them in educational activities.

The administrator has certain duties relative to the professional care of patients.

Although in almost all institutions the administrator does not take an active part in the treatment of patients, he must see that the patient is properly admitted by personnel who will impress him favorably, securing the necessary sociological data with courtesy and without giving offense, and who will promptly and with consideration assign him to his accommodation. The administrator must also see that a medical staff is available and responsible for the treatment of the patient. He will, should occasion arise, prevent the carrying out of any line of treatment that is contrary to the policies of the governing board, such as illegal operations and treatment contrary to the practice of regular medicine. In case of flagrant and intentional violation of such policies, he should have authority to

suspend a member of the medical staff, but must be very certain that he is right before taking such drastic action. He is required to see that the privileges of the hospital are extended only to authorized physicians. Customarily he is given authority to permit a known physician to attend patients until a formal appointment can be made, although the medical staff recommends and the governing body makes appointments. The administrator is expected to see that all patients are properly assigned to a staff physician immediately after admission and that they receive prompt attention. Definite rules for assignment, formulated by conference with the medical staff, should be made in case of all free patients and those paying patients who apply for admission but have no attending physician.

In order that the administrator may obtain a knowledge of how the medical staff is functioning, and that they, in turn, may better appreciate the problems of administration, he should be expected to attend all medical staff conferences. If he is a physician he will take part in the discussions. He will provide the facilities necessary to the medical staff for the proper treatment of patients, and will see that all orders for treatment are in writing and will instruct the personnel not to adopt or carry out verbal orders. He will engage and control the resident and intern staff if such is authorized, but in doing so he customarily confers with the delegated representatives of the medical staff. As the administrative head of the hospital, he makes the individual contracts and assigns the members of the resident medical staff to duty in accordance with the rules enacted by the medical staff. The administrator also provides for adequate medical records and reports by supplying the desired forms and

arranging for the proper custody of the completed records.

Part of the hospital organization under the administrator are the various adjunct facilities used in the diagnosis and treatment of disease, such as x-ray department, clinical laboratory, electro-cardiography, physical therapy, pharmacy, and others. He selects the heads of these departments and makes such contracts as may be authorized, although he usually delegates selection of technicians and other personnel to the department head. He holds the head of the department responsible for proper functioning of the department along recognized lines, and instructs him to take orders for examination and treatment from the attending physician. The administrator fixes fee schedules and is responsible for collection of accounts in these departments.

As part of his duties relative to the professional care of patients, the administrator is also responsible for dietary service, nursing service, and sometimes education of nurses. The service of food is an important responsibility because it is a material factor in producing health results and in making the hospital popular. He selects a competent dietitian to head the department and to be directly responsible to him. The administrator must provide for the service of special diets ordered by the attending physicians, with the dietitian carrying out the instructions. Very important right now is the administrator's attention to economy and control of waste in the dietary department.

Nursing service is a most important function of the hospital, and it is one which the administrator must delegate to a capable director, who will have under her control assistants, instructors, supervisors, and others necessary to carry on the work. The administrator must see that adequate supervision is provided on the floors to be

certain that patients are receiving care and treatment in accordance with the best hospital practice and the express orders of the attending physician, under authority delegated to the director of nursing. He should establish uniform technique in the operating rooms and other departments, in so far as this is possible, through standing orders issued over the signature of the administrator but worked out in conference with the medical staff. From the nursing department and others the administrator demands certain reports which show the work that is done and the results being obtained. If there is a school of nursing, the administrator with the aid of the governing body and the director of the school determines qualifications for admission and curriculum, and provides for conformance with accepted standards.

The administrator also has duties relative to the business management of the hospital.

The nonprofessional departments of the hospital embrace accounting, the department of purchase and supply, and the service departments concerned with the physical plant including mechanical, laundry, housekeeping, building and grounds. The administrator cannot be expected to have the special training necessary for the detailed management of any of these departments, but he must understand their operation sufficiently to control their functioning through well-selected department heads with whom he can discuss the problems that arise and to whom he can give good advice on occasion. Emergencies may also arise which will demand that he personally manage a department in the absence of the regular head. He will generally have a business manager in charge of accounting, and, in larger hospitals, he will have a purchasing agent and a storekeeper. But in every hospital, regardless of size,

the administrator must take an active interest in control of expenditures, and in purchasing, storing, and conserving supplies. Serious losses may be suffered through graft and errors in this department.

With respect to the maintenance departments, the only practical way in which the administrator can be assured that they are functioning properly is to make close personal observations on his own daily rounds. He must be familiar with the workings of the departments in order to be able to detect inaccuracies and misstatements, and he must be prepared to consult with the department heads concerning their problems.

These duties that I have been discussing have all been within the hospital organization, but the administrator has many duties outside the hospital. One is to the hospital field in general.

Coordination of effort, mutual discussion of common problems, and frank study of methods of management and of meeting local problems, are needed to improve hospital service, and the progressive administrator will join the local and state hospital organizations and at least one of the national associations and will participate actively in their meetings. He will also give the benefit of his experience to others. He will constantly read hospital magazines and related publications and books in order to keep up-to-date on new ideas and new equipment in the hospital field.

Another duty outside the organization is to organized medicine.

If he is a physician, the administrator will be a member of local and national medical societies, and in any event, he will cooperate to the fullest extent with the programs of organized medicine by admitting only regularly licensed physicians to the privileges of the hospital, assisting

in the educational programs of the societies, and supporting their general policies as occasion warrants. He will welcome the stimulus of the accrediting and approval programs of the organizations which are interested in improving hospital conditions.

Of course, the administrator has a responsibility to his community also.

The hospital exists for the good of the people in the community which it serves. It is an institution whose service should be interrelated with other health and welfare services in the community for the best interests of all. Both to help in accomplishing this and in winning support for the hospital, the administrator should mingle in community affairs and be a leader in them, as his position amply justifies. He must see to it that the public is kept informed of the advantages of hospital care in speeding recovery and in saving life. He should utilize the press, the radio, and the lecture platform in making known the progress of medical science and in urging preventive measures against disease and accident. Preferably he should work with other hospitals in a joint program of public education, and the hospitals in turn should cooperate with other health and welfare agencies with this objective. The administrator should also cooperate to the fullest extent with the public health organizations of the community in reporting births, deaths, communicable diseases, and similar statistics, as well as in supporting public health clinics such as the venereal, tuberculosis, prenatal or postnatal. In these war times there is extra value in community cooperation as only thus can we solve the problems created by shortages of personnel and materials, coupled with the vastly enlarged demands for service in certain areas. The good will of the entire community must be won by hospitals if they are to progress.

A particular need which must be supplied through appeals to the community is for volunteer workers, and the administrator can encourage the formation or enlargement of hospital auxiliaries to which certain work can be delegated. He can also open his hospital to the training of volunteer nurses' aides under the program sponsored by the American Red Cross. A double purpose is served in this type of activity in that the workers, who represent the public, may be won to much greater appreciation of the service the hospital is rendering than they had before, while at the same time they are giving the hospital their time and effort in the performance of work that relieves the nursing and clerical staffs and the personnel in various departments.

This is only a sketchy outline that I have given you of the nature and scope of the job of administering a hospital, but perhaps it serves to show that an individual of quite high qualifications is needed to be a successful administrator. Of course there is wide variation in the types of hospitals and there must be corresponding differences in qualifications. However, in general, we may list some sixteen essential qualifications.

1. *Tact and diplomacy.* He must increase friendship and decrease enmity toward the hospital by treating patients, their friends, the public, the doctors, the personnel, and, yes, the trustees, with infinite consideration of the viewpoints of each.

2. *Firmness, tempered with consideration.* He must be firm in insisting that what is best for the patient must always prevail, but must temper his firmness with kindness and sympathy.

3. *Organizing ability.* Organization and system are necessary for smooth functioning.

4. *Leadership.* He must possess ideals and broad vision which will impress his supporters within and without the institution, inspiring the superior service which is given to a true leader.

5. *Dependability.* He must have a strong sense of responsibility which will make it possible for the governing board to depend upon him, but he should also have a sense of humor as a balancing factor.

6. *Honesty and fairness.* He must be reliable in financial matters and just in giving every person in the organization due credit for his ideas and accomplishments.

7. *Knowledge of human nature.* He must be able to evaluate people, judging of their suitability to fill specific positions, and of their influence as members of the community in helping the hospital.

8. *Industry and interest.* He must be prepared to do anything at any time that is for the good of the hospital, which implies that he is always approachable and willing to meet those who have something to suggest, as well as actively working himself.

9. *Administrative ability.* He must be able to keep his mind clear for larger responsibilities by delegating departmental supervision and details to others, the degree in which this is necessary varying with the size of the hospital.

10. *Education.* He must have basic education sufficiently broad to permit him to associate on an equal plane with the cultured persons in the community and hospital. He must also have specialized education and training in hospital work, and allied fields.

11. *Teaching ability.* He must be educationally minded since much of the activity of the hospital is in the nature of education and research. Without an appreciation of standards and methods he cannot be a leader in these activities in the hospital.

12. *Business ability.* The management of a hospital requires a great deal of money but there is seldom enough. Therefore, the administrator must have the faculty of never losing an opportunity to secure funds, nor must he ever spend a cent unnecessarily.

13. *Buying ability.* This is an acquired characteristic, gained through using discrimination and judgment. He must be able to combine quality and price in his mind so that he may secure the greatest value.

14. *Mechanical ingenuity.* Since a very large proportion of his problems will be of a mechanical nature and must be discussed with trained mechanics, he should have a mechanical turn of mind to enable him to understand at least the principles involved.

15. *Personality.* He must be likable, neat in appearance, and confident in manner.

16. *Cooperativeness.* He must be able to work well with others, and be open to suggestions.

Now, having considered the job, and the essential qualifications, how shall we go about finding the right administrator?

The governing board should be familiar with the objectives of the College of Hospital Administrators which include elevating the standards of hospital administration, establishing a standard of competency for hospital administrators, developing and promoting standards of education for hospital administrators, and educating hospital trustees and the public to understand that the position of hospital administrator calls for special training and experience. In this

endeavor the American Hospital Association, the American College of Surgeons, the American Medical Association, and allied organizations are cooperating. Any of these organizations, and especially the American College of Hospital Administrators, can aid in suggesting suitable persons to administer hospitals, or can look up the credentials of those who may have applied.

The business men who figure largely on the governing boards of hospitals are usually familiar with the technique of employment, and understand the value of the formal application blank and the methods of interview which draw out the applicant. I think it is always desirable, also, in a position of this type, to have the applicant write a letter describing rather fully his qualifications, experience, and feeling toward the type of work for which he is applying. This is not only for the purpose of obtaining information, but also to judge of his ability to express himself, which is most important in an administrative position.

In employing an administrator, his earnestness and enthusiasm should be judged in some degree by his record of participation in refresher courses and conferences. The education and the training of the hospital administrator are never ended, and in proportion as governing boards show more regard for high standards in selecting hospital administrators who are always eager to learn, will our hospitals move forward to the high state of efficiency that keeps them in step with advancing medical science.

2. Educating the Administrator, by A. C. Bachmeyer, M.D.*

THE modern hospital, primarily the product of the remarkable advances made in the biological sciences, is a highly complex and intricate institution. The importance of its

role in human affairs is attested by the increasing use made of it and the demand for its services by all classes of the public, and

* Adapted from *Hospitals* 16:32-34, Feb. 1942.

by the constant extension of its functions into fields other than that of the immediate care of the sick. The increasing complexity of the internal organization of the hospital, the steadily growing pressure of economic difficulties, and the necessity for ever closer integration of its activities with those of governmental and voluntary health and welfare agencies in the community, all tend to make the administration of the institution more exacting and difficult. The task of the hospital administrator is no longer that of a casual occupation. The many serious responsibilities which it entails cannot be imposed upon the uninformed, untrained, and inexperienced individual without great cost to the institution, the medical profession, and the public.

That there was a need for trained administrators was evident to leaders in the field over thirty years ago when Drs. Washburn and Howland published what I believe to have been the first paper on the subject in the *International Hospital Record* in 1910. For more than ten years the American Hospital Association had a committee on "The Training of Hospital Executives." The report of that committee, under the chairmanship of Dr. M. T. MacEachern, presented a thorough discussion of the subject and outlined a carefully prepared and detailed curriculum. The Rockefeller Foundation on two occasions supported comprehensive studies of the situation. However, until very recent years there was comparatively little demand on the part of boards of trustees for trained and experienced executives.

Years ago a small number of leading administrators undertook the training of young men (primarily physicians) through their appointment as assistants and the provision of what might be termed an apprenticeship. A number of the prominent executives of today benefited by such ex-

perience. Apprenticeships for laymen, as well as physicians, are offered by an increasing number of administrators today. This method of education for the administrator possesses considerable merit when properly conducted. The student is brought into constant and close contact with the many problems of administration; the cost to the student is negligible for he holds a remunerative position and his compensation in almost all instances increases as he acquires experience and demonstrates ability. The disadvantages of the system most frequently encountered are that the student is not regarded as such and is so encumbered with duties that there is no time for study, that he gains knowledge of but one institution and not infrequently his experience is limited to only certain restricted phases of the organization's activities, and that he does not obtain a perspective of the entire hospital field.

The apprenticeship method of training was used by all of the professions until such time as organized courses of study were established. Some of them, as in medicine, still find it profitable to use a form of apprenticeship after the completion of the basic courses and before the student enters upon an independent career. Hospital administrators who elect to undertake apprenticeship training in administration should give serious consideration to their own abilities, to the facilities at their disposal, and to the question of whether or not they have the time to fulfill the role of instructor and can develop a sound and progressive program for the student.

In 1934, under the leadership of Michael M. Davis, with financial support granted by the Rosenwald Fund, a course in hospital administration was established in the School of Business at the University of Chicago. When Mr. Davis left Chicago the University was successful in eliciting the

interest of the Commonwealth Fund and of obtaining financial support for the program from that foundation. The course is organized on the graduate level; therefore only students who hold college degrees are eligible for admission. Physicians, nurses, laymen, and laywomen in excess of fifty have completed the course and with few exceptions are now engaged in various executive positions in hospitals.

The student's program of study is arranged in accordance with his previous education. Nine months of study in residence at the University, at least one year of administrative internship, and a report upon a project of intensive study are required of the student who desires to obtain the degree of master of business administration. This course does not pretend to fully qualify the student for the post of a hospital administrator. It does seek to furnish him with knowledge of the fundamental principles of hospital functions and organization, acquaint him with sound administrative practices, and give him a perspective of the role of the hospital in human affairs. The number of students enrolled annually is limited to ten, in order that the work may be individualized, that the students may have personal contact with the lecturers and the administrative officers of the various hospitals they visit, and that they may obtain the greatest possible benefit from the demonstrations and tours of observation in those institutions.

The period of study at the University provides an opportunity for the student to give his undivided attention to the various aspects of hospital organization and administration and to obtain a comprehensive perspective of the role of the institution in society and of its proper relation to the medical and other related professions. The subsequent period of practical experience enables him to observe the application of

the principles he has learned and to participate actively in administrative work.

Courses in hospital administration have also been established at St. Louis University, under the direction of the Reverend A. M. Schwitalla, S.J. For the most part, these are undergraduate courses leading to the degree of bachelor of science in hospital administration and are primarily designed for the members of the Catholic Orders.

These organized courses and the apprenticeships under experienced administrators represent two channels of approach that are available at present to an individual who desires to follow a career in hospital administration.

In recognition of the need for trained men and women administrators, and the desire of many executives to further their knowledge, the American Hospital Association established an Institute for Hospital Administrators in 1933. This Institute, consisting of lectures upon the various phases of hospital work, discussion and seminar periods, demonstrations and visits to hospitals, has been held each year since then in Chicago. Other similar institutes have been held in various sections of the country under the auspices of the American College of Hospital Administrators and in conjunction with universities and local, state, and regional hospital associations since 1935. These short refresher courses have been attended by more than two thousand administrators, heads of departments, and other hospital executives. They have been well received and are generally acknowledged to have been of great benefit to all who have attended. The demand for training and for continuing the administrator's education is clearly demonstrated by the large attendance at these various institutes.

Hospital administration requires special

aptitudes and an extensive fund of knowledge. It involves a knowledge of the basic principles of medicine, nursing, social service, business organization, personnel management and labor relations, finance and accounting, purchasing, mechanical, electrical and sanitary engineering and other basic fields. It calls for personal qualifications that are encountered only in the older professions. The administrator cannot know intimately all the details of every procedure carried out in the institution, but he must know the significance of and the implications of all activities that are undertaken.

Change and progress in science are constant. Human relations are never static and in these days, particularly, conditions in all fields of endeavor are in a state of greatest flux. The administrator must keep abreast of the times. His quest for knowledge must continue throughout his life or at least throughout his active career.

Having secured a basic training through one of the methods mentioned, the administrator should continue his education through attendance at such institutes or refresher courses as opportunity permits, he should attend the conventions and meetings of the various hospital associations (state, regional, and national), and should participate actively in local hospital councils and other community conferences. His daily program should provide a period for reading and study. The various hospital journals present much information that is of immediate interest and application, but

publications in related fields—in medicine, nursing, public health, and in the fields of hotel management, engineering, business, and finance—are of almost equal importance.

The executive has need of a well-selected and comprehensive library. The literature in the hospital field is scattered and incomplete. The few books that have been published afford only an introduction. The various journals are of greater value but one must develop a critical attitude in order to appraise much of the material that is published and must develop qualitative sources of information. This requires initiative, time, and energy but the benefit to be obtained fully justifies the effort.

There is a growing supply of trained hospital executives. Boards of trustees should no longer consider the appointment of individuals of little training or no experience as administrators of their institutions or the selection as such of one of their own number whose only qualifications are no job and a passing interest in the hospital. Having chosen a well-qualified individual as chief executive, they should place him in full charge and clothe him with full authority and responsibility for the conduct of the institution.

Boards of trustees should encourage their administrator in his or her efforts at self-improvement, if for no other reason than the selfish one—that the better informed and trained the administrator is, the better will be the general management and service of the institution.

3. Development of Hospital Facilities for Patient Care, *by Mildred F. Walker**

For administrators and department heads alike, the focus needs to be sharpened upon this objective—the development of the hospital for the patient and his care. In the performance of the daily chores, the meet-

ing of the day-to-day problems, and the

* Adapted from Lectures and Discussions presented at American Hospital Association Institute on Design, Construction and New Equipment for Food Service in Hospitals, The Knickerbocker Hotel, Chicago, Dec. 2-6, 1946.

planning for specific services, this focus is easily shifted and the objective becomes distorted and indistinct.

The patient, at the hospital's first contact, is not just a sick individual but the product of all that has happened to him. The fact that a patient is accepted for admission throws upon the hospital a responsibility to this "whole" person. Whether the hospital actually assumes that responsibility can only be measured by the degree to which it has brought to the patient's care the completeness of services that the entire knowledge of modern medicine and related sciences has put in our hands. Hospitals have the obligation to make available the contribution which all professions can make toward fulfilling the needs of those patients the hospitals have admitted. All professions—medical, nursing, dietary, physical therapy, and social service—must participate.

To effect such complete participation suggests a device put to work in only a few institutions—the gathering together of a team of all the heads of the professional services and departments of the hospital, to think through and plan together methods for meeting the full needs of the patient—a device far different from the usual concept of staff meetings directed by the administrators. Its effectiveness requires that the administrator know how to correlate the thinking that each profession contributes.

The term "patient care" is used with such glibness among persons in hospital work that it would be appropriate to examine what we mean when we voice the phrase. Webster defines "care" as "charge, oversight, or management." Since we are considering the development of the hospital toward this end, let us again consult Webster, whose definition for "development" is "to bring to maturity" or "to make progress." In these meanings, we

find the broad concept of our objective: To bring to maturity our charge, oversight, or management through the efforts of all in order to meet the full needs of the whole patient. While this article is in particular directed toward the dietary service, it has general application to all services within the hospital.

With the great reservoirs of scientific knowledge available, hospital administrators or department heads can no longer be content to view the dietary service as a part of hospital operations analogous to the food service of a hotel. We cannot be content to think in terms of food and meals, but rather—how shall the nutritional needs of patients be met as an integrated part of the physician's planning for the patient's therapy and well-being?

It is as much the responsibility of the hospital to provide means for fulfilling the nutritional needs of the patient through a competent dietary service as it is to provide means whereby operative procedures may be carried on with safety to the patient, or to make nursing services available. I cannot point up too strongly that adequate dietary services must be accorded the same importance as adequate operative facilities and services, for it is imperative to the over-all health of the patient.

Hospital administrators need to ask themselves whether comparison of equal merit between these two services can be made in their hospitals, and whether both services received equal attention in their thinking. Equal emphasis to the two services is not limited to just space and equipment, but requires a competent and adequately prepared staff, along with the recognition of medical, nursing, and other professional services to the patient.

The first requisite for the development of any hospital or service is an eagerness on

the part of the administrator to foster the growth and progress of his staff. This requires willingness to provide opportunities for further training—for postgraduate work, for refresher courses, for periods of observation in other hospitals where teaching is a tradition. The large hospital with a permanent staff will also need to provide comparable opportunities through planned programs and periods for in-service training. Opportunity for professional growth is one of the most vital means of bringing satisfaction and stability to staff members, to say nothing of improvement in services. The stimulation that comes from our professional confreres is a need of us all.

For those hospitals in smaller towns and outlying places, there must be worked out closer relationship with the hospitals in the larger centers, that will make it possible for the staff of the smaller to look to the staff of the larger for guidance and help. Arrangements for exchanging and lending members of the staff from the larger to the smaller hospitals from time to time might be made. The system being discussed in the hospital field today of bringing about organic relationships between medical school hospitals as teaching centers and outlying community hospitals and health centers would offer facilities to the staff of the smaller hospital for refresher experiences.

If each profession gives thought to the quality of the services that must be filtered out as representative of that profession to patients under care in the more remote regions—and if there is a desire on the part of that profession for its services to meet high standards—then members of the professions in the larger hospitals have a responsibility to develop their departments as centers for teaching, to which others may turn for further learning.

The public agencies charged with respon-

sibility for improvement of care to mothers and children—with administration of programs like the emergency maternity and infant care services to service men's wives and the permanent, long-range program for services to crippled children—have an obligation to concern themselves with the quality of care obtained. Standards of services in hospitals are in wide variance, and are not always what might be desired. As a result, public agencies, such as state health departments, have been aroused to place on their staffs professional personnel with particular training in obstetrical and pediatric nursing, social service, and nutrition in order to render assistance and guidance in these special fields to hospitals for improving their standards of care.

The hospital field itself has taken a forward step in encouraging the enactment of state laws to protect the public by licensure and inspection. However, I should like to point out that it is not the mere passage of such laws—or the licensing and inspecting of hospitals—that will bring about the development of hospitals or attain the goal of high standards of patient care. If these laws are to serve a real purpose, the task of the state agency entrusted to carry out their administration—usually the state health department—is not one of issuing permits and policing, but rather of providing guidance and advice to hospitals through a staff of well-trained consultants in the various professional fields of medicine, nursing, social service, accounting, and nutrition, to confer with administrators and personnel and jointly work out means for bettering care to patients.

Health departments in many states already have added such special professional personnel, and hospitals in these states have a source to which they may turn for stimulation and advice. Other effective measures

would be for state health departments and state hospital associations to cooperate and collaborate in planning methods for training dietary and other professional hospital personnel—offering institutes, and the advice and services of nutritionists and consulting dietitians to every hospital.

The Chicago institute for administrators and dietitians, and those sponsored for other personnel, are outstanding examples of the desire of hospital people to seek opportunities for self-improvement. The job is to carry this pattern along down the line, creating opportunities whereby all staff may be inspired to seek means for professional growth. The desire that such chances shall be given to staff members is the first step toward providing them. When convinced that such action is important, then administrators as individuals and as groups, through state hospital associations and in cooperation with public agencies such as health departments, will demand ways and means of developing staff members. Any hospital, however poor the quality of its personnel, can bring its services to meet the full needs of patients if there is eagerness for improvement.

With expanding scientific knowledge, we are having pressed upon us in all professional fields the importance of techniques to prevent disease and to control its spread. Constant review and alertness are of utmost significance when new planning or remodeling of hospitals is to be undertaken. Architectural designing, as well as the selection and installation of type of equipment, must take into account the newest and best methods of carrying out the techniques considered most safe.

An example that is being given much thought just now is formulation of methods that may be best for handling the formula

for babies. Consideration of the planning and administration of the formula room is needed in this connection. Administrators and heads of departments need to be abreast of the best current thinking when architectural planning is undertaken, to have knowledge of facilities that will effect the highest standards of care. Also, administrators will need trained personnel, well informed in their special fields, to look to for advice.

Hospital and health literature is beginning to give us a glimpse of the broad terms in which we must think when we consider patient care. Care should not be restricted to the welfare of the patient while he is with us within the hospital. Care must encompass his general well-being, his health as he returns to his home, and, in addition, must help him retain good health to prevent the recurrence of illness. A hospital experience is an interlude too expensive to have only interim significance. The hospital has an obligation to carry its work beyond its doors. It must project itself into the home.

While patients are in the hospital, there should be opportunity for them to learn the fundamentals of good health and when they go home have knowledge of good nutritional habits to meet their needs. More, the hospital has an obligation to see that this beginning is followed up in the home, to know that the knowledge gained while in the hospital is being put into practice in the life of the family, and that the patient is continuing in a state of well-being.

The hospital interested in discharging its obligation to patients will seek ways for accomplishing this aim. The local public health services and the public health nurse constitute great arms reaching out from the hospital into the community. Hospitals

generally have not made use of these services. They have not found means of working out relationships with the community health agencies to get full care of their patients.

The hospital to carry its full obligation to its logical conclusion cannot shirk responsibility to ambulatory patients who come to its doors. Here again there must be effective work of a team—doctor, nurse, social worker, and dietitian—to keep the patient out of bed, prevent illness, get him well, and keep him well.

To direct our focus toward developing our hospitals to assume fully their obligation for high standards, let me summarize:

When we talk about care, it must be complete care. It must bring to the patient all the benefits that scientific knowledge has put in our hands for protecting the health of our people and restoring the sick to health.

Within the hospital we must have joint participation and planning of all professions concerned—medical, nursing, nutrition, social service, and others—to meet the over-all needs of the patient.

Planning, arranging and providing opportunities for further training of dietary personnel is essential, including post-graduate work, refresher courses, and in-service training institutes. Relationships need to be established between outlying hospitals and the larger teaching centers to develop professional stimulation.

Sources for advice and guidance in the development of personnel in the dietary service should be sought. Hospitals, recognizing the need for and desiring assistance, might plan with health departments and state hospital associations to secure it. State health departments in many states will have trained personnel available to give guidance and assistance for improving services.

Learning should be for the purpose of improving care, with assistance and guidance made available to hospitals through

the responsible agency, to help them accomplish this purpose.

As scientific knowledge is placed in our hands, there must be constant review of techniques with emphasis on the pooling of the thinking of all professional groups concerned in rendering care to patients. The application of new techniques must be taken into account in the architectural planning and equipping of departments and hospitals.

The hospital's obligation to its patients carries beyond its doors. Patients should have learned the fundamentals of good health while in the hospital. They must receive guidance on their nutritional habits for the time when they return home. And there must be means of seeing that good nutritional habits are being carried out in the home. Relationships with public health nursing and other community health services require development and are essential to extend the benefits of hospital care to the outside life of the patient.

There is a responsibility for teamwork between doctor, nurse, and dietitian in the care of the ambulatory patient not only to get him well but to prevent him from becoming sick.

Understanding by hospital administrators of today's broad concepts of care, and comprehension of the expanded meaning of health, will reflect themselves in the services the hospital provides in meeting the full scope of the patient's care. The services will be as inclusive as the vision of those responsible and as limited as their thinking and knowledge. No administrator of a hospital or department will be content with less than best and complete care for his patients if he is a leader. Administrators who lead will develop their hospitals as true facilities for bringing health to a whole community. With knowledge rapidly unfolding, better tools becoming available, and more well-trained professional personnel being developed to use them, the challenge is great.

4. The Case Method in Teaching Public Health Administration, *by Harold D. Chope, M.D.* *

DURING 1940-1941 the author was engaged upon a general study of the problem of making public health administration a more effective part of the graduate school curriculum in public health. The task is an old one: i.e., an effort to place an applied subject on an equal intellectual footing with older disciplines which depend for their intellectual attractiveness upon the experimental method and the achievements of that method.

After reviewing past experience and current opinion regarding education in public health administration, it was decided that there were available five teaching methods which can be described as follows:

1. The lecture and assigned reading method
2. The seminar method
3. The apprentice method
4. The dig-it-out-yourself method under proper guidance and criticism
5. The case method

Each method has its own advantages; and public health administration may be taught by all these methods, by any one, or by any combination. The method or methods selected depend on several factors: the personality, experience, ability, and energy of the teacher; the number of students in the class; the availability of well-organized field areas; the relationships between the academic institution and the local or state public health organization.

The *lecture method* is the least satisfactory and perhaps one of the most commonly used methods of teaching public health administration. Indeed, a lecture has been described as "the process by which the professor's notes become the student's notes without passing through the mind of either!" The lecture method

certainly has its place. For the instruction of large classes, for the presentation of certain historical data, for descriptive analyses, and in providing general background for other types of study, it is essential. It is probably the easiest method for the professor, because he can prepare his lectures and, if he is so inclined, read them to the students year after year with minor changes. From the viewpoint of the student, the lecture and assigned reading method tends to place more emphasis and a higher premium on memory and knowledge of the lecture notes than on cerebration and critical analysis.

The *seminar method* is less formal: it allows for an exchange of ideas between the professor and student and, more important, permits student participation in the development of an idea or a subject. This method is used extensively in schools of public administration. Its disadvantages are that it works successfully only in small groups, preferably not more than ten, and that the professor has to possess the particular ability to incorporate the student's ideas and approaches into his teaching; for unless expert guidance is given to the seminar, all hope of a systematic discussion of a topic is lost.

The *apprentice method* is claimed by many to be the only method by which administrators may be trained. Persons of this belief feel that the qualities needed by a successful administrator can be developed only in the face of the necessity of making clean-cut decisions, and that any other type of training is vicarious, sterile, and non-productive. It is perfectly true that other professions, such as medicine, have found

* Adapted from *Am. J. Pub. Health* 34:605-610, June 1944.

that even an extended period of classroom and laboratory experience does not produce a finished product, and that a period of apprenticeship or internship is required before the student is capable of practicing his profession. A period of supervised employment of students after completion of a graduate academic year would undoubtedly be of value in the development of public health administrators, but the actual inauguration of such training, except in a few localities, has been deterred by many factors. Because of the present shortage of personnel, state health departments or other agencies sponsoring public health fellowships are anxious to have the student return to his regular appointment as soon as possible after completion of the academic year. Once the student returns to his job the school has little opportunity to exercise any control or supervision over his activities, and frequently the health department is more interested in his immediate usefulness than in his continued development. The average local or state health department is not prepared to take interns for short periods and integrate them into their regular program activities, sharing the supervision of the intern's program with the university. Frequently the intern serves only as an interested observer instead of an integral part of the organization, and too great a variety of experience is arranged.

The *dig-it-out-yourself method* under competent guidance is probably the most effective teaching technique and is the exact opposite of the lecture or "spoon-feeding" method. When taught by this technique, the student is assigned a problem and it is up to the individual to orient himself, set up his hypothetical questions, accumulate his data, analyze them, and propound possible solutions. This method usually establishes an intimate bond be-

tween the student and his faculty adviser, provides opportunity for wide reading, and frequently extensive field contacts. However, the students of public health administration could undertake only a few problems in the course of an academic year, as this method of learning is most time-consuming and is usually reserved for the advanced student who is a candidate for the degree of Doctor of Public Health.

It is the object of this brief communication to discuss the *case method* and report on a single experience which seems worthy of record.

Case study is not new. It originated in the Harvard Law School and has extended through law schools into schools of business administration and more recently into the field of public administration. In a sense this method has always been used in teaching medicine. Since the days of Hippocrates, students of medicine have learned to manage the patient of today through consideration of the history, examination, and progress of the patient of yesterday as his condition was unfolded by the successful medical teacher.

The success of the case method in the teaching of law would seem to depend on the fact that to solve a given problem the student has to use his knowledge and his independent ability in marshalling decisions and precedents which apply to it. In many respects this is the experimental approach. The student is confronted by a question which he answers by a more or less competent use of his past experience. Similarly, in medicine the student confronted by a problem in diagnosis and treatment must, to reach his conclusions, resort to his memory of previous patients, reinforced by his knowledge of chemistry, bacteriology, and pathology.

In defense of case studies as used in

other branches of education, the following quotations are cited:

Wallace B. Donham, Dean of the Harvard School of Business Administration, states: "The failure of both business and political leadership to rise to the heights needed has its roots, I believe, in the failure of our universities to prepare men broadly for the world of affairs. The only way these things can be attempted in our universities without resulting in a vast amount of unrealistic sentimentality is, I believe, by paying more attention to the great intellectual field of administration. The theory and action must meet; their decisions must be efforts to do the best one can under all the circumstances. The administrator must integrate, decide and act—the one way to train men for administration is by the case system and, so far as I know, there is no other classroom method which impels students to go through the mental processes involved in administration."¹

Professor George Graham has made the following comment: "Three factors lay at the root of the case system's development. One was the conviction that administration was essentially the solution of successive problems; that the administrative process was one of gathering all relevant information bearing on the problem, making decisions and carrying them out. The second factor was the demand for a device to interest and stimulate the active, extrovert type of student who had ample energy, but not too well developed study habits. The third factor was the desire to avail students of all fields of knowledge relevant to their problems regardless of existing lines of university organization. The case is thus a practice problem, a disciplinary device, and a means of integration."²

William E. Mosher finds even greater implications in the case system as a re-

search method: "Case studies, in and for themselves, may have some suggestive value, but unless they cover systematically and comprehensively all possible variations with respect to one or another feature or problem no generalization can result. It is the hope of establishing generalizations, of discovering dependable and predictable relationships and sequences that ever beckons the scientist on. He believes that there is order in the universe and has confidence that through patient inquiry, painstaking observations, and the reasoning process of the human mind this order may be discovered."³

On the basis of these opinions it was decided during the second semester of the academic year under consideration to try out the case system in connection with the teaching of public health administration. Following the outline of case studies of the Committee on Public Administration of the Social Science Research Council, the students were asked to prepare case studies drawn from their own experiences. This work was done on a voluntary basis, and the presentation and discussion of the cases took place in the evening.

The following plan for an exercise using the case report method was submitted to the students:

1. Each student is requested to describe a problem in public health administration (actual or hypothetical) that has been of interest to him.
2. These will be submitted to the faculty of the department of public health prac-

¹ Wallace Brett Donham, Training for leadership in a democracy, *Harvard Business Review*, Spring 1936, p. 261.

² George Graham, *Education for Public Administration*, Public Administration Service, 1941.

³ William E. Mosher, *Adjusting the Sights for Public Administration*, Presidential address, American Society for Public Administration, Dec. 28, 1940, Chicago.

tice and the best and most illustrative cases will be selected for class discussion.

3. The case reports selected will be duplicated and distributed for consideration by the students prior to the meeting.

4. The faculty and students will discuss each case presented and attempt to arrive at a decision.

The outline for the written presentation of a case report was as follows:

Title: The title should be short and give the general idea of the material covered, e.g., "Selection of Temporary Personnel."

Statement of the Problem: This should be brief and to the point.

Relevant Facts: Give as much background as is necessary to enable the group to outline possible decisions and select a course of action.

The Results: Do not include the decision which was made in the situation discussed or the results of the decision. This will be left for faculty and student discussion.

Twenty-five cases were submitted by the students. These were read and the most illustrative selected, edited, and duplicated. Because of the limitations of time only eight cases could be selected and only about fifteen minutes allowed for presentation and discussion. Four students were assigned to discuss each case. The titles of the eight cases were as follows:

1. Promotion of a Staff Member on Basis of a Civil Service List
2. Development of an *Esprit de Corps* in a Disorganized Health Department
3. Direction of an Antagonistic, Politically Strong Bureau Chief
4. Local Public Relations
5. Disciplining of Subordinate Staff Member for Aggressive Self-promotion
6. Selection of a Location for a Health Department
7. Public Relations Involving the Medical Society and County Supervisor

8. Coordination of Activities of a State Health Department to Avoid Duplication of Field Visits

Two cases which are fairly typical of those submitted and which gave rise to the most heated discussions are included here as examples. That the students expressed interest in these problems need not be doubted.

CASE I

Title: Selection of a Location for a Health Department.

Problem: Should the offices of a county health department be located at the county seat or in another city offering greater conveniences?

Relevant Facts: A county health department is to be organized in a county of 20,000 persons in which there are two principal towns, A and B. A, the county seat, has a population of 800 persons and is situated near the southern border of the county. There are two physicians practising in A—an older man over 65 years of age, who has been hostile to the proposed health department, and his assistant, who is four years out of college. The only building in A with central heating is the courthouse, in which there is no space for the health department.

Town B has a population of 7,000 persons and an additional 5,000 are to move in shortly to work on a dam, which is to be three miles from Town B. Six doctors practise in B. Three of them have a successful clinic and a fifteen-bed closed hospital. Dr. M, the organizer of the clinic and hospital, has previously opposed the health department. The County Court having now authorized funds for the health department, Dr. M pledges full support and offers to build a \$10,000 building on a site one block from his hospital and four

blocks from the main street of the town. He proposes to rent this building to the health department for \$30 a month. The three other physicians in B are lukewarm toward the health department and hostile toward the clinic group headed by Dr. M. Because of the influx of dam workers, office space is at a premium in Town B.

There are four other physicians in the county. One who lives five miles from Town A is violently opposed to the health department; he has not the professional respect of the other physicians. The remaining three physicians, who live within a radius of ten miles of Town B, have pledged their support to the health department. Town B is located near the geographic center of the county, twenty miles north of A. The budget is slender and has been appropriated for one year only. The Court has pledged support for a permanent health department if the experiment is successful. The county officials want the health department in Town A. All the physicians, with the exception of three, have signed a petition that it be in B.

Questions: Should the health department be located in Town A, the county seat, or in Town B?

Should Dr. M's offer to construct a building for the health department influence the decision?

CASE 2

Title: Public Relations Involving Medical Society and County Supervisor.

Problem: What action should a local health officer take when an influential member of the County Board of Supervisors requests the violation of a policy established by the local medical society?

Relevant Facts: For a period of ten years or more the health department of a county situated in a southern state had been administering rabies vaccine without charge

to any residents exposed to rabies. Recently a member of the local medical society objected to this practice. He contended that the health department should do only work which affected the health of the public and that rabies endangered the public in no way. He cited the fact that the health department did not administer tetanus antitoxin.

The matter was brought up before the medical society for discussion and the society went on record by a unanimous vote to request the health department to discontinue the administration of rabies vaccine, and further unanimously agreed that they would administer all necessary vaccine, charging a fee for those able to pay and giving it free to those unable to pay. The medical society assured the health officer that no one needing treatment would be deprived of their services and the health officer agreed to abide by their request.

Two weeks later, a local woman came to the office and requested rabies vaccine, having been bitten by an apparently rabid dog. The health officer explained to her the arrangement with the local physicians and she left the office. That evening the oldest member of the County Board of Supervisors (who are responsible for health department appropriations) called and asked the health officer to give the woman rabies vaccine. The supervisor stated that he would telephone to the state health officer if the local health office failed to comply with his request. In the state in question, local health departments are under the direct supervision of the state health department.

Questions: What course should the local health officer follow at this point? Remember, he must make an immediate decision while talking on the phone with the supervisor.

What could have been done to prevent such a situation (a) at the time of adoption of the policy, (b) at the time of the woman's call at the health office?

After the case had been presented by the author the three students assigned to discuss the case expounded their ideas, an effort being made to obtain as many divergent viewpoints as possible. The author then told the actual decision that had been made in the case and the results, and during the remaining time the problem was thrown open for discussion by the entire class and faculty members present.

In the first case above described, the students, who had had some experience with political organizations and county health service, maintained that the headquarters of the health department should be located in town A with the other county offices; while students with somewhat less experience held that the best service could be provided for the greatest number by locating the health service in town B. The class was nearly unanimous in agreeing that Dr. M's offer should not be accepted. The decision actually made was to obtain one room in the courthouse in town A which was considered the headquarters, and establish in a rented house in town B a branch health center.

In the second case described the discussion centered more on criticism of the health officer for allowing such a situation to arise than in a discussion of the possible solution.

The reaction of the students to these problems was enthusiastic; in fact, the most serious difficulty encountered was in

attempting to limit the discussions to the time available. Discussion of some of the cases was carried on among the students outside the classroom for some days after the exercise. It was observed that several students who had taken little or no part in classroom discussions defended with considerable ardor their viewpoints regarding the cases. In some instances students cited material learned during the regular course in analyzing situations, indicating a desirable integration between theory and practice.

It should not be understood from the foregoing discussion that the writer feels the case system is the *sine qua non* for the teaching of public health administration. It is only a valuable aid. Education is not accomplished merely by having a problem to solve. Before the student can use case reports effectively, he must have a broad general knowledge of his field. This the case system does not provide. The case system may be very valuable in developing the capacity for decision in students and teaching them the tricks of administration, but it is no substitute for a thorough knowledge of the theory, principles, and philosophy of a subject. Teachers of administration must in some way find the golden mean between theory and precedent on the one hand and cases and cleverness on the other. Used alone, the case system would not produce the type of administrators that the schools of public health are anxious to turn out. Used as an adjunct to other methods of teaching, it might do a great deal to improve the interest and content of the present courses in public health administration.

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PART THREE



CHAPTER VIII. MEDICAL STAFF ORGANIZATION AND RELATIONSHIPS

I. Medical Service Audit, *by Wilmar M. Allen, M.D.**

THE fundamental product of hospitals is medical service; it is of prime importance that this service be good. We have come far along the road from the mysticism of the medicine-man and the ancient temples, from the custodial care of the middle and early modern ages when the function of surgical assistants was to restrain the patient and the only anesthesia was the merciful collapse induced by agony. Even in the last part of the nineteenth century the patient entered a hospital only when he had nowhere else to go. The more fortunate were "hospitalized" in their bedrooms or on kitchen tables.

Much, perhaps most, of the road remains to be traversed. The changing character of hospitals depends almost entirely on the evolution of medicine and its ancillary services.

It is strange, therefore, that few if any hospitals have this service audited in any way comparable with that of finances or inventory. It is remarkable that such medical audits as are carried out are in a sense auditing one's own books or are conducted by one who is not a certified medical accountant.

Probably the most frequent type of medical audit is the departmental, and often the results in private cases are not studied at all. It is as though one accountant audited the payroll account, another checked the inventory, and a third the accounts receivable, while no one coordinated the various findings or investigated the endowment funds. On the other hand, if a member of the medical staff, perhaps in

rotation, is assigned the duty of conducting the medical audit, it is hardly possible that his training and knowledge are so comprehensive in the various fields of medicine as to make his audit adequate.

I am speaking of the adequacy of medical service—not the apparent adequacy of medical records. I mean doing all those things which should have been done and not doing those things which should not have been done. I mean competent diagnosis, reliable therapy, and care of the patient as a whole—not just his "south-east corner." His malnutrition may be more important than his hernia, or his gall-bladder disease of greater significance than his acute rhinitis. Tonsillectomy and the irrigation of the paranasal sinuses will hardly be effective if the basic cause of the condition is food allergy.

Who, then, is to conduct the medical audit? It seems obvious that it can be performed only by a group of the medical staff, sound in judgment and sufficiently experienced to cover the major fields of medicine. I read your immediate thought that there is not time for such a group to review all cases, and I agree. But there is time for the careful audit of a substantial sample. A small percentage of patients, fortunately, constitute the basis for such study—namely, those who have died in the hospital. I believe that such a "death review" is the minimum medical audit; it should include every fatal case, ward or private.

In small hospitals having less than fifty

* Adapted from *Hospitals* 17:56-57, May 1943.

deaths per year, the records of all patients placed on the "critical list" should be included in order to have a sufficient number to be significant. If the medical staff consists of less than ten or fifteen men, it would probably be best to have the review made by the pathologist alone. This would be well worth while even if one had to be imported for a short time for this purpose.

The medical staff group or committee should include the pathologist for obvious reasons. The other members should be selected from among those who regularly make a complete study of the patient. An internist and a general surgeon should certainly be included.

Each record is reviewed by at least two members of the committee. No doctor is given his own cases. Where necropsy has been performed, of course, the audit of results is much more accurate. Where there is some doubt from the record, the attending doctor or doctors, including the house staff, are consulted. Where criticism can be made, the record is submitted to the whole committee for final assessment.

I believe it is a thoroughly tenable position that, if the professional care of those who succumb is above reproach, the management of the more fortunate who benefit by our care must be likewise. About the fact of death there can be no argument, and it therefore behooves us to study our failures—avoidable or not—with minutest care so that each succeeding year shall see more of success and less of failure. An individual or group that is not vitally interested in the results of its work, with a view to continual improvement, is at least static if not perhaps decadent.

A number of years' experience with this procedure has demonstrated to our satisfaction that it is a real audit. A comparison of the first year with the latest reveals substantial progress. The following

list shows the data recorded on the summary card.

DEATH REVIEW CARD

Name	
H. No.	
1. Avoidable O. P.**	
2. Avoidable I. P.*	
3. Investigation*	
4. Treatment*	
5. Record*	
6. Diagnosis*	
7. Elective	Yes - No
8. Emergency*	
9. Hopeless	Yes - No
10. Date of death	- -
11. Age	
12. Sex	
13. Prev. admission	Yes - No
14. Duration P. I.	
15. Stay in days	
16. Op. Dr. code	
17. Death, days P. O.	
18. Preop. prep.*	
19. Op. risk*	
20. Seen by staff	Yes - No
21. Staff notes*	
22. Dr. code	Wd. Priv.
23. Consult satisf.*	
24. Autopsy No.*	
25. Com. member	
26. Com. checked	
27. Operation	
28. Prim. diag. A B C†	
29. Sec. diag. A B C†	
	A B C
	A B C

* Grade 0, 1, 2, 3, 4 = good to bad—use figures.

** Refers to medical care only.

† A = proved; B = probable; C = questionable.

‡ List important diagnoses—limit to three.

Among the more frequent errors were these: (1) the failure to recognize and treat medical conditions in surgical patients, and to a lesser extent in the reverse direction; (2) the attempt of procedures beyond the real ability of the particular doctor; (3) too great delay in having needed consultations; (4) insufficient care in substantiating and recording diagnoses.

The findings should be summarized and

reported to the entire medical staff. Its purpose is not individual discipline but group education. In connection with the report, no doctor's name is mentioned, but each is offered the opportunity to see the comments on his own cases if he desires. I should like to reemphasize that the success of the program depends on its being impersonal and educational. It is not a question of what the individual doctor has done wrongly, but what the staff can do better.

To give an example. In our first audit there occurred four deaths following vaginal hysterectomy. Each operation was performed by a different physician, each case by itself seemed a calamity that happens under the best of circumstances, but together indicated the need for a study of this situation. Since then, there have been fewer such operations and no deaths.

Obviously, only doctors can make such an audit, and it is to be hoped that the medical staff will initiate and conscientiously carry out this procedure. It is not a matter of witch hunting but of truth hunting. If the staff does not adopt the "death review," I think it is proper that the trustees or board of directors request them to do so.

In some ways, the doctor is a peculiar breed. Throughout his training and practice, his development is that of an indi-

vidualist. The study of and relationship to the patient, the responsibility for making positive decisions, and the relative lack of the need for organization or administration contrive to make him so. He is used to giving orders, not to receiving them, and hence does not take kindly to coercion. On the other hand, he is attuned to appeals for help and usually responds readily and generously. An understanding of this make-up will solve many problems and answer many of the questions propounded at round table discussions. In my experience, the doctor who does not respond to a reasonable appeal is a distinct exception.

The medical audit should be reported to the entire medical staff annually. It should not be reported to the board of directors and probably not to the administrator, but they have a right and duty to know that this review has been carried out effectively. Experience has shown that this procedure will largely eliminate inadequacies and sustain a high level of medical care.

Death is not debatable—it represents a medical failure due, of course, in great part to the inadequacy of our present knowledge. A study of the records of the departed will reveal many facts, often not otherwise obvious. Like the motto of the pathologist *Veritas non sepelienda est*—"The truth must not be buried."

2. Three Eras in the Developing Relationship of Medical Education and Care, *by Samuel Proger, M.D.**

IN CURRENT discussions of the problem of medical care there is, even in academic circles, a tendency to devote major attention to the economic aspects of the problem. There are, however, other aspects which are worthy of thoughtful discussion. The orientation of medical education is one of these.

The historical relationship of medical

education and medical care in this country may be said to fall into three eras.

There was first the colonial period, when medical education was largely incidental to medical care. Those were the days of the preceptor and the apprentice. In general a young man was apprenticed to his preceptor for from three to seven years. This

* Adapted from *Hospitals* 20:48-54, Apr. 1946.

system was in vogue until the colonies achieved independence, and in some states into the early nineteenth century.¹

The beginning of medical schools in this country may be dated from the appointment of William Shippen, Jr., as professor of anatomy and surgery and of John Morgan as professor of medicine in the College of Philadelphia in 1765, although it was not until 1767 that the trustees of the college adopted definite rules in regard to the conferring of medical degrees. Yet, as late as 1810 there were only five medical schools in existence in the United States with a total enrollment of about 650, of whom about 100 received either the degree of bachelor or doctor of medicine.²

The population of the United States at that time was 7,289,881, and there were about 7,000 part- or full-time medical practitioners. Most of the practitioners in this country shortly after the turn of the century were, therefore, still products of the apprentice system.

Next came the period of didacticism, when medical education and medical care were, to all intents and purposes, divorced.

The idea of the founders of medical schools in this country was to make them supplement but not supersede the work of the preceptor and the medical apprentice. By combining in a medical faculty several preceptors, each qualified in one department, all the branches of medicine then recognized could be reviewed in the form of didactic instruction in five or six months of the year. It was assumed that the student would serve two to four years of apprenticeship before resorting to a medical school.³

Gradually, however, private pupilage disappeared and didactic study in a college assumed more prominence so that by 1876 one-third of the 64 medical colleges then in existence could give their students no

opportunities for clinical instruction, and all except three or four attempted "to crowd instruction in all the departments of medicine upon the attention of mixed or ungraded classes in annual college terms of from 16 to 20 weeks and exact only two such strictly repetitional courses for graduation."⁴

This period of didacticism, which flowered in the half-century from about 1830 to 1880, produced what may be regarded as the lowest level of medical education in this country. At least one important reason for its low status was the fact that medical education during this era was almost entirely separated from medical care.

Toward the end of the last century the attention of medical educators was once more directed to sick patients. Thus, John Shaw Billings in 1877, in suggesting how Johns Hopkins University might organize its medical department, was led to remark that "not a single person has advised the establishment of a school on the same plan as those already in existence."⁵ He stated further that "an absolute necessity to make the school effective in training practitioners is abundance of clinical material."⁶ "The demand for clinical teaching is a reaction against excessive or exclusive use of lectures as a means of giving instruction,

¹ Joseph M. Tover, M.D., *Contributions to the Annals of Medical Programs and Medical Education in the United States before and during the War of Independence*, Washington, Government Printing Office, 1874, p. 103.

² N. S. Davis, M.D., *Contributions to the History of Medical Education and Medical Institutions in the United States of America, 1776-1786*; special report prepared for the United States Bureau of Education, Washington, Government Printing Office, 1877, p. 24.

³ *Ibid.*, p. 25.

⁴ *Ibid.*, p. 45.

⁵ *Suggestions on Medical Education; Extracts from lectures delivered before the Johns Hopkins University by J. S. Billings, M.D., United States Army*, Wm. K. Boyle & Son, Stearn Book & Job Printers, Baltimore, 1878, p. 1.

⁶ *Ibid.*, p. 2.

and a reaction which is natural and justifiable.”⁷

In assessing the contribution to American medicine of the Johns Hopkins group, we are likely to be so impressed with their introduction of the scientific approach to medicine that we are inclined to lose sight of their perhaps equally important influence in reintroducing the sick patient as a medium of medical education. To be sure, they were interested only in those sick patients directly under their care in their own hospital, and the great advances in medical education in this country in the past half century have proceeded with this more or less limited relationship to sick patients. With this system very high standards of medical care have been achieved in this country, but predominantly in university teaching hospitals.

The fact that medical care assumed a place of secondary importance to medical education in the teaching hospital is further illustrated by Billings's suggestion that “so far as the hospital is concerned, it must either have a large number of beds, or some means of moving patients rapidly from its wards, discharging them to institutions for chronic or convalescent cases, and filling their places with those of immediate interest.”⁸ The emphasis is on patients of “immediate interest,” i.e., teaching interest.

The modern era of medical training is one in which medical care is more or less incidental to medical education.

It is not intended to imply that medical care is neglected or considered unimportant. On the contrary, at those points at which medical care and medical education are related, the medical care is of the highest order for the very reason that it has become a model for teaching. It is only intended to imply that those points of contact are few and that the relationship of

medical care to medical education is quite limited.

This development in the relationship of medical education and medical care in this country has proceeded over a period of 150 years. In Europe the same process of development has extended over a period dating from Hippocrates in the fifth century B.C.

These eras and these relationships are, of course, not sharply etched. The gradualness and the peripheral zone of overlapping which characterize all human movements obtain here as well. But these eras do emerge as major tendencies.

In general, then, the development of medical education in this country may be said to have proceeded somewhat as follows. First, there was the era when medical education was more or less incidental to medical care—the days of apprenticeship. This was up to about 1830. There followed the period when medical education was practically divorced from patients. This was the didactic period and extended up to about 1890. Thereafter, with the introduction of the teaching hospital, medical care became incidental to medical education.

Perhaps we have now reached a stage where it might be possible to introduce another era in the relationship between medical care and medical education, one in which medical education will be related to practically all phases of medical care. In other words, instead of medical schools using only a small number of hospitals for the purpose of training their students—in which case the training is primary and medical care quite secondary—perhaps it will be possible to have medical schools affiliate themselves with most of the hospitals in this country for teaching purposes under circumstances whereby medical edu-

⁷ *Ibid.*, p. 18.

⁸ *Ibid.*, p. 2.

cation and medical care will be given equal emphasis.

The problem is essentially one of integrating more completely our present highly developed medical educational programs into the problems of medical care.

This is what we have been attempting at the Tufts College Medical School through a program sponsored by the Bingham Associates Fund. To accomplish such an integration there has been created first a hospital organization (in Maine and Massachusetts) affiliated with a medical school (Tufts). This hospital organization is on a graded basis; there are smaller community hospitals, district centers, and the medical school hospital center in Boston.

Such a graded grouping represents essentially a single complete hospital organization spread over a wide geographic area to care for a large medical population through organized channels of filtration. These channels are kept open for orderly, rapid, and automatic filtration so that the patient in the most distant isolated community has potentially and easily available the most specialized services that can be developed in the widest practicable geographic area.

The creation of graded centers, each equipped to handle in the best possible manner problems within a certain scope, should do much to check the present tendency for patients to travel great distances for medical care. Improvement in transportation facilities is likely to increase this tendency. If such medical traffic is controlled by physicians and not subject to the whims of patients, and if efficient local and way stations are established, there will not only be many less patients travelling aimlessly about and often unattached to a safe, local medical base, but those patients who do reach the larger centers from distant areas will be only such as really need to be

there, and they will still be under the medical control of their local physicians.

Each individual unit in such a grouping of hospitals should be clinically independent of every other unit. That is to say, one unit should not have to draw patients from other units in order to survive. Only in this manner can disinterested cooperation be easily achieved. For example, in a large metropolitan area like Boston a central medical school hospital can be established which is clinically independent of the hospitals in Lewiston, Waterville, Presque Isle, and other points. There are enough patients in the Boston area to supply sufficient clinical material so that if no patients whatsoever were drawn from the affiliated hospitals, the Boston hospital could survive and function independently. Similarly, the Central Maine General Hospital, located in Lewiston, has sufficient patients in its own community to be clinically independent of all of its affiliated communities so that it, too, can cooperate impartially. The same thing is true of the small community hospitals as they relate one to the other.

On the other hand, if an attempt were made to establish a base hospital or a regional center in a small community, it would be clear at the outset that in order for such a hospital to develop beyond the range of ordinary community hospitals, it would have to draw patients from surrounding communities and, once established as a center, it would have to continue to draw patients from surrounding communities in order to survive. There would thus be created potential sources of jealousy and conflict between various communities.

Worse still, if such a center in a small community became particularly large, it would tend to produce a sort of medical atrophy in the outlying areas. The process would be one of centralization at the base

and subordination at the periphery. When, however, population is taken into consideration, it becomes possible instead to decentralize and coordinate. It also becomes possible to create a situation, maintenance of which is to the selfish interests of all concerned. Incidentally, when selfish interests are harnessed to a useful goal, there are created internal cohesion and vitality which assure dynamic progress with a minimum of central direction.

Surgeon General Parran, in suggesting that the Bingham Associates program serve as a model for the nation at large, has referred to a central base hospital as being "desirably connected with a medical school."⁹ If, however, a medical educational program is to be fully integrated into the problems of medical care, then a medical school should be made an essential and not only a desirable part of the planning of every central base hospital. The medical school is not only the sole source of the continuing supply of physicians, but it is the source of the high quality of medical care supplied by all practicing physicians. The distribution of this high quality has been uneven in the past because there has been no organized plan of relating the medical school to the entire community.

Generally the highest quality of medical care available in any given area has been that which centered about a hospital connected with a medical school. This high quality of medical care should be extended in its geographic scope as far as is possible and practicable, the medical school serving as the focal point of distribution. The distribution of the highest quality of medical care, based on the critical application of the newest advances in medicine, is basically a medical educational program. It is therefore logical for it to be based on an educational institution.

It may be said that there are large areas

in this country without medical schools. Almost every geographic area, however, has a preponderance of physicians from one medical school in an adjoining or nearby state. Such a school would be the logical educational focus in that area. If necessary, perhaps an occasional new medical school might be created to serve as the continuing source of constantly improving medical care in a large area which would otherwise be without such a stimulating influence. Incidentally, a medical school is peculiarly able to be impartial in advancing the standards of medical practice, since its primary function is medical education.

In the foregoing discussion emphasis has been placed on the role of a medical school in a program of medical care because it is through such a relationship that a full coordination of medical education and medical care can be achieved.

When an organization has been visualized and created which is potentially capable of such a full coordination, it then remains to develop the means for making such an organization practically effective. When the highways have been built, traffic has to be moved and directed. Such directed movement to be most effective should take place on the three levels of medical education, namely, the undergraduate, the graduate, and the postgraduate. Thus far our approach has been practically limited to the postgraduate phase.

It has concerned itself not only with such customary postgraduate activities as clinics, teaching ward rounds, and lectures

⁹ Hearings before a Subcommittee of the Committee on Education and Labor, United States Senate, 78th Congress, 2d Session, Pursuant to S. Res. 74. A resolution authorizing an investigation of the educational and physical fitness of the civilian population as related to national defense. Washington, Government Printing Office, 1944. Part V, p. 1793.

in the affiliated hospitals, but it has involved as well the coordination of certain ancillary medical services such as laboratory, x-ray, pathology, dietetics, library, and electrocardiography. Finally, arrangements are made for the orderly referral, as desired, of patients who present increasingly difficult problems from the smaller community hospitals to the regional centers, to Boston. The details of this program have been described elsewhere.¹⁰ At this point it may be worth while to indicate some of the principles which we have considered of fundamental importance in the establishment of such a postgraduate medical program. These are:

1. *Comprehensiveness.* In continuing and expanding, our postgraduate program in order to be successful must be sufficiently comprehensive. An engine, to function well, must have many parts. Any one part may be extraordinarily fine, but if other parts are lacking, the engine is not very useful. It is possible that few, if any, postgraduate programs in the past have been wholly successful because few, if any, have been sufficiently comprehensive. There is probably no single approach to the problem of postgraduate medical education. The solution is rather in seeking a proper combination of various approaches.

In undergraduate medical education no one form of teaching is employed. We have laboratory exercises, didactic lectures, clinics, ward rounds, clinical pathological conferences, and the like. If it has been found desirable to approach the problems of undergraduate medical education through a variety of methods when we are dealing with a more or less homogeneous group of students, how much more important is a multiple approach to the postgraduate medical educational problem when we are dealing with practicing physicians who have not only various trainings,

but diverse types of practice, different environments, different interests.

Thus, if a clinical teacher who is conducting rounds at Lewiston suggests that an Rh determination is important, arrangements are easily available for the method to be introduced into the local laboratory. There are many examples of the complementary nature of our postgraduate program which have made it clear not only that such supplementation is desirable, but that without it a postgraduate program can at best be only briefly and partially helpful.

2. *Intimate Relation to Clinical Practice.*

Wherever possible we have attempted to relate our teaching directly to the patient with whom the practicing physician is concerned. Hence, the x-ray conferences in Boston are not designed simply to provide helpful general information to the radiologists from the affiliated areas. They are planned in such a manner that all or most of the teaching material consists of the actual clinical cases with which the radiologists are immediately concerned.

The teaching ward rounds in the affiliated hospitals become large-scale consultations because the patients used for such teaching present problems of immediate concern to the practitioners involved. The postgraduate program is, wherever possible, closely linked with clinical consultation. The doctor is brought into the program through his patient, which is to say that his daily professional activities become a medium for his continued education.

Incidentally, the principle of applying wherever possible clinical consultations with clinical teaching makes the actual teaching more acceptable since it is of more immediate practical use.

3. *Automatic Provisions for Continuity.*

¹⁰ J. H. Pratt, Better rural medicine, *Bull. A. M. A.* 27:122-123, June 1932.

Another highly desirable principle of a postgraduate program is that it be made automatically continuous. The isolated postgraduate course is at best a temporary ripple in the stream of the physician's consciousness. Actually, the incorporation of the teaching program into the physician's practice wherever possible in itself serves to make the program continuous because the practice is continuous.

We have considered as basic features of a successful postgraduate program comprehensiveness, continuity, and integration with clinical practice. In a consideration of graduate and undergraduate medical education as they may be related to the problems of medical care, provisions for continuity and integration with clinical practice are of equal importance.

Thus far we have made only tentative and cautious attempts to approach the problem of graduate education in our program. We have done nothing with regard to undergraduate education. Our present thoughts, however, as to how these phases may be incorporated into the general program are somewhat as follows. These plans are subject to considerable change or they may even be discarded, but they will serve as a point of departure:

First, as regards undergraduate education. It is our hope in the postwar period to arrange clinical clerkships for fourth-year students in the community hospitals associated with our program. In each suitable hospital we would plan to have one such clerk for one or two months at a time. This student might spend half the day, i.e., the forenoon, in the hospital itself, acting essentially as a junior intern, while he would spend the afternoons working as an apprentice in the office of a family doctor.

Through his hospital work the medical student might not only gain invaluable hospital experience, but he would also get a

picture of how really satisfying work in a rural community can be. His presence might at the same time serve as a stimulating influence in the hospital itself.

We should probably plan to arrange the clinical clerkships only during those months when a teaching resident was available for supervision (see below). In the time spent as an apprentice to a family doctor the student would be enabled to gain an intimate insight into the problems of a family doctor in a small community and, what is equally important, he would get a first-hand picture of just how such a doctor lives. Incidentally, a normally inquisitive medical student could be most effective in keeping the general practitioner to whom he is apprenticed actively interested and concerned with the swift stream of medical developments.

It is possible that much of the resistance which is now present among medical students and interns toward even considering a rural practice in their plans for the future would diminish if they were given an opportunity to learn what such practice really is and just how pleasant the life of a country doctor can be if arrangements have been made to see that this doctor is not medically isolated.

Should the student decide to settle in a small town, he would subsequently find it possible to maintain contacts with his medical school through the continuing stream of students and interns who would be coming from his school, through clinics given in his hospital by his former faculty members, through postgraduate courses at his medical school, through coordinated work on his patients. In other words, the rural community would be contained in the broad academic circle of the student's medical background so that he could become a country doctor and still remain actively a part of the school.

Some such program for medical students has, of course, been employed by some medical schools, including Tufts, in the past. Some of these programs are still in effect, as at the University of Vermont Medical School, for example. It is hoped that the advantages recognized in these past experiences may be enhanced by the closer relationship between the community hospital and its staff on the one hand, and the medical school on the other, as may result from a fully integrated program of medical education and medical care as referred to above.

Now, as for interns. One of the important sources of information available to physicians connected with hospitals is the intern or resident staff. Even in teaching hospitals the constant influx of interns from other hospitals and other schools, coming as they do supplied with the current thought and practice in their hospitals and schools, serves as a continuous source of medical instruction. The limited experience which we have had in supplying residents to the Rumford Community Hospital in Maine has demonstrated the value of this form of instruction in a small community hospital.

An experiment in education along the following lines is worth considering. The internships in certain selected teaching hospitals might be made one year longer, the final year to be spent in one-month services as a teaching resident in twelve small hospitals. Or such teaching residencies might be made available to any suitably trained candidate.

One month's service in a small hospital can be both very helpful to the hospital and illuminating to the resident, as we have learned from experience. A resident going to a small hospital after two years or more of training in a good teaching hospital

knows only what is the latest and presumably the best practice in his field of either medicine or surgery. In a small hospital he would represent the "current" phase of medicine as contrasted to the varying degrees of past medical practice represented by the local hospital staff.

A continuous flow of such residents from a teaching hospital to a small hospital could maintain a continuous supply of this current material. The newest method of giving blood transfusions; the best approved methods of handling shock; the newest surgical techniques; all these would arrive in the small community hospital with the resident who was transferred from his teaching center. On the other hand, experience in problems of judgment and in handling people, a recognition of the compensations as well as the difficulties of practice in a small community—all these and more would come to him in return from the staff under whom he would serve.

There are at present in this country no satisfactory means for giving instructions to surgeons in small communities in the actual techniques of operating. The courses which are available consist largely of lectures and demonstrations, and do not have a wide appeal to the often somewhat inadequately trained surgeons who are doing much of the operating in small communities in this country.

A surgical resident, on the other hand, in his capacity as assistant to one of the physicians operating in the small community hospital where he would be serving as a resident, would be in a position to offer invaluable help in technique if in no other way than through example. The operating surgeon, face to face with a problem on the operating table and deeply conscious that the resident who is assisting

him has just come from a surgical clinic where the most advanced surgery was being practiced, would, it has been our experience, make good use of this resident and his knowledge.

The local doctor would respect the *training* which the resident had received regardless of what he thought of the resident himself. He would not be likely to inquire what the resident thought; he would, however, be likely to inquire as to what would be done under similar circumstances in the hospital from which the resident came, or what the resident's distinguished recent chief would do under certain given circumstances. The staff physician would be receiving the most intimate form of instruction just where it was most needed, namely, in the actual management of his patient, and the senior relationship of the staff physician to the resident could be fully maintained.

Our experience has indicated that a similar situation obtains in internal medicine. The local doctor, faced with the problem of handling a most difficult cardiac case, willingly accepts what information he can get from a resident whose recent training in the handling of similar cardiac problems he respects. The patient profits immeasurably, the local staff doctor learns, the quality of medicine improves, and the resident has the unique satisfaction of gaining experience and instruction from the local staff while at the same time supplying an invaluable service.

There are certain incidental advantages of a plan of this sort which would appear in themselves to be of considerable value. Most important of these is the fact that well-trained young men are introduced into small communities where, as already indicated in the case of the undergraduate student, they are often surprised to learn

that life and medical practice are really quite attractive. Some of these well-trained men can reasonably be expected to settle in these small communities.

In Rumford, for example, where we supplied residents for a few years, two of the physicians who settled in that community during that period were introduced to the community through this residency. In Lewiston the situation was similar. This is a common experience and can reasonably be expected to repeat itself; it is well known that physicians tend to settle in the vicinity of the hospitals in which they interned. Some such plan may, therefore, serve as a means of helping to solve the most difficult problem of maldistribution of physicians by encouraging well-trained young physicians to settle in small communities.

There are obviously considerably more small community hospitals than the few teaching hospitals connected with the medical school. Each community hospital, therefore, could expect to get only one or possibly two residents each year. If two residents were sent, each for one month during the year, to an affiliated small community hospital, preferably one for one month in surgery and one for one month in medicine, these two men could supply twelve hospitals with such a service.

Thus, if hospital appointments could be arranged on such a basis through a medical school and its teaching hospitals so that as many as 20 men graduated from internships in Boston to residencies in smaller hospitals, theoretically as many as 120 small hospitals could be supplied with such a service. In other words, the program could conceivably cover a large part of the smaller communities of New England.

Having the resident for only two months

in the year (one for a month in surgery and one for a month in medicine) might actually be better than having a year-round resident. The resident can contribute most of his best information in one month; the cream is quickly skimmed off. And the hospital staff can regularly anticipate the month when a new resident will be available as a source of new information. Also, the hospital will not become dependent upon the residents for much of the routine work which should be done by the staff.

The work for the resident in each small hospital would need to be standardized to such an extent that changing from one hospital to another would involve little more than going from one service to another within a large hospital. As a result of the establishment of a standard academic program for the month's work in each hospital the resident need waste no time in learning new routines, acquainting himself with special local procedures, and the like. If one-month services prove unsatisfactory, the services might be lengthened to two months. This would, of course, decrease by one-half the number of hospitals which could be included in such a service.

The foregoing discussion has concerned itself with the smaller hospitals. The traditional internships and residencies should, of course, be continued in the hospitals of intermediate size within the program as well as in the larger hospitals. It might be desirable to rotate some internships and residencies between the base hospital and intermediate centers in order further to coordinate the teaching activities of the entire hospital program. We already have in fact such a plan in operation in some of the hospitals in our program.

The problem in small community hospitals is, however, different. A distinction

should be made between the intern and resident status. Internships can be rotated through base hospitals and intermediate centers, as we have already demonstrated to our satisfaction. The internship in a small community hospital, however, is not likely to be satisfactory, first, because the intern is medically so immature as to have little to offer, and, secondly, because he needs more instruction and supervision than are likely to be available in such a small hospital.

If the small community hospital, therefore, is to be incorporated into a program of graduate medical education, it will probably have to be on the resident level, as indicated above. The resident is sufficiently well trained to have the status of and to serve as an instructor (as he does now in many of our university teaching hospitals), while at the same time he is mature enough to profit from many of the intangible benefits to be derived from short periods in smaller hospitals.

Medical education can be widely integrated with medical care. It is only necessary to determine how this process can best be consummated. Our experience thus far has served to indicate how this may be done insofar as postgraduate medical education is concerned. Further experimentation in this field is desirable, as well as extension into the graduate and undergraduate spheres. A fully developed program can do much to elevate the standards of medical care. It can also contribute to medical education in making the process of such education smoothly continuous from undergraduate, to graduate, to postgraduate years. Finally, and most important, it can do much on a broad scale toward bringing medical education closer to the ultimate reason for everything in medicine, namely, the sick patient.

3. The Hospital's Responsibility in Postgraduate Education of the Visiting Staff, by *Frank R. Bradley, M.D.**

POSTGRADUATE education is a matter of attitude, of desire, of atmosphere. It is really part and parcel of the life of the physician, the nurse, the hospital administrator, and, in fact, of all professions. Continued education has interested physicians since Hippocrates. Of a certainty, this interest extended to the Aesculapia, or hospitals, of that day. Really, there is little new about the subject.

The secret of good postgraduate education is largely in having an enthusiastic and interested visiting staff. The reward is better medical care to the patient. There must be a leader who himself is enthusiastic and who can in turn inspire the staff to sustained interest in continued education. With such a leader, the most commonplace and often tedious routine becomes touched with amazing interest. And so it can be with postgraduate education and the visiting staff.

Continued education of the visiting staff is vital in maintaining the professional standard of the hospital. It requires sustained effort on the part of both the trustees and the medical staff. The hospital administrator plays an important role by being the liaison officer between the medical staff and the governing body. This calls for the highest type of cooperative effort, combined with intelligent appreciation of the results obtained in all departments of the hospital. Organization of the medical staff is essential. There is no other way to reach and maintain a high standard of postgraduate training which, in turn, means a high standard of clinical care given the patient.

Organization makes possible staff conferences, which are a basic requirement for approval by the American College of Surgeons. These conferences devoted to the

problems of scientific medicine play an important part in continued education. It is an ideal place to present experimental work, clinical methods, and the development of new methods and techniques. Pathologic, radiologic, physiologic, and other conferences in any hospital are an effective means of keeping abreast. If, in addition, the hospital has developed internships and residencies on a truly educational basis, the effect is much greater. A further advantage is that the staff may furnish definite evidence that the care of the patient is of high quality; a clinical audit if you will.

At these conferences much depends on the personality and ability of the chairman. He must, as we have indicated, be not only able to arouse interest and enthusiasm and to attract and inspire staff members to attend and give their best work, but he must be able to conduct the meeting in a businesslike manner and see that the discussion follows a definite course. The more educational and scientific manner in which material can be presented, the more interest will be aroused. It is unfortunate that general practitioners often do not have access to these excellent educational opportunities in the hospitals. It would be a wise plan if hospitals that have well-developed staff conferences and teaching programs for the visiting staff would invite the general practitioners of the area to attend the staff meeting.

The report of the Commission on Graduate Medical Education, published by the University of Chicago Press in 1940, gives much information that is particularly helpful. This publication treats the subject of postgraduate education for not only general

* Adapted from *Hospitals* 17:83-85, Jan. 1943.

practitioners but for specialists, and what is of particular importance today, the post-graduate education as it applies to the intern, assistant resident, and resident. The war accentuates the need for continued education of the visiting staff. It is conceivable, particularly in the more urban communities, that physicians not now admitted to practice in many hospitals may properly seek such privileges, and if it is decided to grant them this privilege, here is a splendid opportunity to ask that they take some type of postgraduate training. We do this for staff nurses who return to hospital duty after having been away from the hospital for some time, and the results are gratifying to the nurse and to the hospital.

There is a type of education which is not always recognized as such, namely, the day-to-day association with colleagues in the same or in different fields of medical practice. This is one of the values of hospital staff appointments, since they multiply such opportunities. While in its formal aspect this becomes a consultation, much education of this sort goes on informally in the dressing rooms, on the wards, and in the corridors of the hospitals. The value of this daily contact with an organized well-trained staff cannot be overemphasized.¹

A word about consultations. The young physician is fortunate who learns early to have medical consultation for his patients whose conditions are difficult to diagnose or who are critical. Early consultation protects him from censure by the family for not obtaining aid. Even if the patient is improving, the family will often call in a consultant, with or without the consent of the attending physician. Such situations are always embarrassing, and usually not best for the patient. The attending physician not only protects himself from such embarrassment, but shares the responsibility for the care of the patient with a consult-

ant. The physician who has learned this also prevents himself from falling into the grievous and all too common error of considering himself infallible.

One of the best graduate courses in instruction is the post-mortem examination. It is, furthermore, one of the best preventatives of the error of infallibility, and although it is but seldom so considered, is an excellent source of consultation, the pathologist being the consultant. Post-mortem examinations are disagreeable and expensive, but essential. The responsibility of the hospital to obtain post-mortems is definite. The information gained is not only useful for postgraduate instruction of the attending staff, but the experience thus gained improves his clinical judgment and skill. The hospital administrator should make the same check through the medium of the record librarian, staff history meetings, reports to the American College of Surgeons and the American Medical Association, and by personal observation.

We may not realize that an adequate number of interns is a most essential contribution on the part of the hospital toward the continued education of the visiting staff. Why? First, because the visiting physician is required to teach the interns. In teaching the teacher becomes a student. Teaching is a stimulus of no mean virtue to the teacher. Some men are natural teachers, but most of us can do the job if required. Second, the intern fresh from medical school brings to the hospital and to the visiting staff knowledge of new diagnostic techniques and methods of treatment, and oftentimes if the intern has had previous training at a large or teaching hospital and possesses the ability to carry out the procedure, he may become the teacher instead of the pupil.

¹ *Report of the Commission on Graduate Medical Education*, Chicago, University of Chicago Press, 1940.

We have discussed chiefly informal postgraduate education. It is possible to give more formal postgraduate education to the visiting staff, especially to general practitioners. The responsibility for the more formal type of postgraduate education will in all probability be that of the medical schools, although the medical societies and specialty societies can and do plan and promote such courses. The public health services, local, state, and federal, have been maintaining courses for some time. However, it is the hospital which provides the place and much of the clinical material which constitutes a large part of the cost, and this seems to be eminently fair and just.

Libraries play a very important role in the postgraduate education of the visiting staff, and the hospital which maintains an active library is fulfilling its responsibility in this respect, and furthers the education of the intern and nursing staff as well. Several medical libraries make packet libraries available at nominal cost. Packets of up-to-date and carefully selected articles are listed in a card index, and when a physician inquires about a certain subject, these packets are sent to him. The American College of Surgeons makes this service available to its fellows. The American Hospital Association also has a library service; although most of the subjects are not always clinical they are of value to the physician. There is no reason why medical societies having a well-stocked library should not give this service at a nominal cost to hospital staffs, and hospital administrators

should arrange with their staff committees to seek this service.

This subject of continued education is so fascinating and can lead to such varied and interesting topics that one regrets to stop, but there must be a conclusion. The need for postgraduate education for the visiting staff may be illustrated by the following story:

"If today," said a New York City physician, of abundant patients and sufficient fame, "I were to practice my profession as I did a score of years ago, I would be jailed for malpractice. And a score of years ago had I practiced my profession as I do today, I'd have been jailed for malpractice. So much has the world of surgery and medicine turned over in twenty years." The hospital cannot escape the great responsibility to stimulate continued education of the visiting staff, to collaborate in every way with the staff, and to see that facilities for teaching are available. Staff consultations, as far as the hospital is concerned, furnish perhaps the best type of continued education. They are a definite advantage to the patient, to the physician, to the hospital, and to the community. Encouragement of frequent consultations and post-mortem examinations contribute greatly. An adequate intern staff is essential, but the secret is an enthusiastic and interested staff with an enthusiastic leader who can inspire the staff to sustained interest in continued education. It is no idle statement that with such a staff the hospital can give the most precious thing in a hospital's power to give—distinguished medical care.

4. Educational Program for Interns and Residents in a Nonteaching Hospital, *by Joseph G. Norby**

AN EXPOSITION of the subject requires that we clearly define our understanding of the terms "educational program" and "nonteaching hospital." It may be assumed that

the nonteaching hospital is the hospital that does not have direct university or medical school connections. Its staff is not pri-

* Adapted from *Hospitals* 16:18-21, Jan. 1942.

marily made up of physicians who teach in a medical school and patronage is not assigned primarily to teaching purposes. Patients are admitted on the responsibility of private practitioners who direct their care throughout the course of their treatment in the hospital and their aftercare at home. The staff members maintain their hospital connection by virtue of appointment by a lay board, usually upon the recommendation of a committee of the staff itself. Elections occur annually and membership upon the staff is, as a rule, of long duration.

An "educational program" presupposes a logical sequence of instruction, thoughtfully planned, and pursued in accordance with well-defined pedagogical principles applied to training for the medical profession.

These definitions seem, on first glance, to present a situation extremely difficult to accommodate. We have, on the one hand, an obligation to undertake a comprehensive teaching assignment involving adult minds and professional techniques; on the other there is a staff organized essentially on the basis of excellence in the practice of medicine, rather than the teaching of it. However, further analysis will demonstrate, I believe, that there is no insurmountable difficulty involved if the effort is made intelligently and if proper leadership can be enlisted.

The term "nonteaching hospital" is something of a misnomer, because no hospital today, worthy of the name, can be anything but a teaching institution. Its teaching obligations involve the public itself, the personnel, the nurses, the professional staff, and others. The instruction and training of these cannot be left to others without jeopardizing the service in the hospital and the welfare of the community. Its accomplishment involves a comprehensive program, well organized and efficiently

executed, and can only succeed as the various elements in the hospital understand and support it. A better name would be "the nonuniversity connected hospital."

The question arises: Can or ought the "nonteaching hospital" attempt to perform in the field of medical education, and is there need for such participation?

The need is quite apparent. There are not sufficient university connected beds available to provide clinical training for either interns or residents. The need for supplementary beds is more acute for residencies than internships, but both must be provided for outside the strictly university connected hospitals. The need and the obligation are, therefore, established. The question is, therefore: Can the nonteaching hospital provide the type of training that the young doctor should have to adequately prepare him for the practice of his profession, either as a specialist or as a general practitioner?

Let us first consider the hospital and its organization in relation to the problem. Nonteaching hospitals as we know them fall into the general classification of charities. As a rule they are organized not for profit, under the control of religious orders or lay corporations. The motive that prompted their organization was to provide places and facilities for the care and treatment of the sick or disabled. Later, as the need for trained workers became apparent, hospitals quite uniformly assumed responsibility for the training of nurses. The concept that these voluntary organizations also have an obligation in the training and preparing of the physician is of more recent development, and it is doubtful if hospitals generally fully understand what is involved. They have rendered a valuable service in the training of nurses, and they have the means and the opportunity to render an equally valuable service in the field of

medical education. There are, to be sure, certain factors that must be considered and certain conditions that must be met if the work is to succeed. Let us briefly consider a few of them.

First, the hospital should be large enough to provide clinical material sufficiently varied to give the student a reasonably comprehensive view of the problems with which he will be expected to cope. Advantage may be derived from a dispensary service and the availability of free beds. Size alone does not, however, guarantee a successful program. Sufficient clinical material must be secured to satisfy the plan of instruction. This may be done either through the house service (dispensary), by affiliation with an outside dispensary, or by some other means. In the end it is the effective manner in which available material is used and the quality of instruction that count rather than the quantity of material available. Second, it must be emphasized that the hospital should be sufficiently stable financially to support a specialized educational program which inevitably involves additional expenditures and expanded facilities. Third, the lay board must understand its obligation to the community to embrace also an educational program. Fourth, the medical staff must be so constituted and led that the program may have reasonable assurance of success.

The last two items are of sufficient importance in this discussion to warrant detailed consideration.

The initiative for an efficient teaching program, such as we are considering, must come from the staff. The obligation for teaching, sponsorship, and research must necessarily be assigned by this group. It therefore follows that no program can succeed unless there is active staff support. The medical man must have intelligent understanding, willingness, and ability to

participate in a teaching program. There will usually be found on every staff a few men interested in teaching. Their cooperation can be enlisted for special teaching assignments or sponsorships. For the formal clinical teaching, the hospital should have full-time incumbents in radiology, pathology, anesthesiology, pharmacology, and others. These are primarily attached to the hospital as clinical consultants to the staff, but their presence provides the means for teaching the basic sciences and directing research. The staff itself should be well organized and made up of competent men, trained and approved in their specialties. Staff meetings should be regular and the programs should have sufficient quality so that the membership may have definite benefit from its attendance. The time has probably come when membership upon the staff and assignment to divisions or departments may be based upon approval by the specialty boards. High quality type of staff membership, interest, and willingness to participate in the program, the presence of a clinical group in the hospital prepared and equipped to teach and to guide the research are elements without which no program can succeed.

Success is not dependent upon the medical staff alone, however. The governing or lay board might almost be given a place of first importance in the working out of a successful program. It requires enlightened understanding on the part of laymen to provide the necessary financial support and administration. The lay board must understand the interrelationship of efficient medical care and an educational program and the consequent benefit to the community. Funds and equipment must be provided and a high standard must be set for staff membership and a sympathetic administration secured. Given a professional organization such as described, and a lay board

committed to service in its broadest sense, and we are prepared to proceed to the consideration of the program.

Our program involves a double classification—the internship and the residency.

The internship is essentially undergraduate. It is a continuance of the medical school, completion of which qualifies for a medical degree. Too often the importance of this year has been underrated. Little or no effort has been made to give the year educational content and, as a consequence, the young medical student has felt that the year has been wasted, and that he has been abused by being required to serve as a glorified orderly.

The residency is graduate study in preparation for a specialty. This term should not be confused with the practice often employed of assigning a certified doctor to duties usually performed by interns or orderlies simply as a makeshift. The residency should rest on a systematic educational plan carefully outlined and rigidly supervised.

The plan observed by the hospital with which the writer is most familiar is as follows and is presented only as a suggestion. It is experimental to a certain degree and it is offered for what it may have of value.

THE INTERNSHIP

The internship may be of one or two years' duration. In the one-year internship the rotation may be in the following services: surgery-medicine, obstetrics, laboratory, x-ray, and anesthesiology. In a two-year internship the rotation may be as follows: first year as outlined for the one-year internship. The second year may embrace pediatrics, six months; contagion, three months; mental and nervous, three months. These services may be given by the hospital providing the training, if such cases are received in sufficient number to warrant it,

or by affiliation with special hospitals in the community or near at hand.

The internship in a so-called nonteaching hospital takes on an aspect somewhat different from that in a teaching or university hospital, where services are controlled by department heads and bedside clinics can be worked out under their direction. The average voluntary hospital can solve this problem to a degree by developing a proctor system in which the head of a department or someone assigned by him assumes responsibility for the clinical instruction of the intern while he is on a specific service.

The intern working directly under the supervision of a resident is responsible for the care and treatment of patients on his service, for taking histories and physicals, and for making rounds routinely twice daily and oftener where the condition of patients requires it. Weekly circles are held with the resident, at which time the charts completed during the past week are reviewed, amplified, and summarized. Clinical conferences are held one hour each of five days of the week from five to six P.M. These are presided over by one of the specialists attached to the hospital. In addition, there are special lectures on selected topics by staff men, lawyers, board members, and others. At the conclusion of each service, the intern is graded by the proctor and a report is sent to the dean of his school at certain specified times.

THE RESIDENCY

The number and type of residencies to be offered will depend upon the size and type of hospital and the type and quality of instruction available.

Clinical residencies (surgery, medicine, and obstetrics) are normally of four years' duration. They all proceed through a uniform course during the first two years.

The first year is the basic science year. This is taken under the direct supervision of the pathologist and includes a thorough foundation in anatomy, embryology, and histology both normal and morbid. The clinical resident during his first year acts as director to the intern on laboratory service under the direction of the senior resident and director. He is in close contact with the divisions of chemistry, bacteriology, and immunology.

The second year is known as the general residency year and is intended to orientate the candidate in the entire field and also to provide administrative training. He is responsible for the direction of the intern service, and supervises the house service in all departments. Clinical experience in surgery and medicine and opportunity to act as assistant in surgery are provided.

The third and fourth years furnish specialized medical and surgical experience. A definite number of house cases are assigned the residents for full management in keeping with their own development and ability. A sponsor assumes full responsibility for each resident's progress. A definite program is developed to include two months of anesthesiology in each year. These residents instruct nurses and interns. They complete a prescribed reading course and otherwise satisfy the Committee on Graduate Education of their fitness for certification at the end of their training period.

The special residencies are of three years' duration. A description of the procedure followed for residents in laboratory medicine and radiology will serve to illustrate the procedure followed for resident training in special branches.

Laboratory Medicine

The applicant must be a graduate of a class A medical school. He must have had an internship satisfactory to the depart-

ment; a two-year rotating internship is preferred.

First year. During the first year he is given a thorough foundation in anatomy, embryology, and histology, both normal and morbid. He acts as director to the intern on laboratory service under the direction of the senior resident and director. He is in close contact with the divisions of chemistry, bacteriology, and immunology. He assists the director and senior resident upon request. He presents assigned cases at staff meetings and to the interns. He attends conferences, clinics, and medical meetings as time permits and as directed. He is assigned pertinent reading on his subject. Facilities are provided for a suitable and approved research problem. He may spend up to 30 per cent of his time in another basic science.

Second and third years. The second and third years are used for completion of the candidate's training for effective practice of laboratory medicine and to prepare him for an examination given by the American Board of Pathology. He becomes assistant director of the laboratory. He is expected to show initiative in the improvement of the service subject only to the approval of the director. He is first consultant to the first-year resident as well as to the medical technologists. He is second consultant to the intern on laboratory service. He is under direct supervision of the director. He initiates new procedures in the laboratory on his own initiative upon approval of the director or by assignment. He keeps in contact with cases in the hospital with the view to bringing about intelligent and thorough laboratory study, attends medical meetings, and does reading as directed as well as upon his own initiative. He lectures to the house staff and nurses as directed and upon request. He shall have mastered all laboratory procedures at this laboratory

during these two years. He is given assistance in any research problem in keeping with the facilities of the hospital and the stage of his training. He may spend up to 30 per cent of his time in other basic science departments. He may give lectures to the public and to the profession on approved subjects.

Radiology

This residency is of three years' duration, at least two years of which are spent in residence. It is realized that some conditions may be seen very infrequently in the resident institution and arrangements are accordingly planned whereby the resident may have opportunity of seeing such cases at other places.

First year. The resident, early in his course, is given basic instruction in radiation physics and x-ray technique. He serves a minimum of three months doing actual technical work, and following that period he is required to be on call for emergency work alternating with the regular technicians. He is present at all fluoroscopic examinations and receives instructions in this procedure. He is present during the interpretation of plates. He is required to participate in weekly x-ray seminars and monthly staff meetings and, in addition, prepare a course in radiology for nurses. During his first-year period a six-month pathological service is given; the duties of the resident during this time are delegated by the head of the department of laboratory medicine, but consist of assisting in post-mortem work and surgical pathology. Particular attention is directed to further study of cases seen in the x-ray department. He directs the technicians in the "setting up" of therapy areas and assumes responsibility for the records of therapy cases. Library facilities on radiological subjects are

available and the resident is assigned topics pertinent to cases seen in the department.

Second and third years. As the resident's knowledge and skill improve, he is permitted to assist in fluoroscopic examinations and in the interpretation of films. He assists the director in discussing the cases seen with the attending men and is also allowed to discuss matters pertaining to the x-ray aspect of therapy cases with the patients and relatives. He acts as assistant director of the department and, in the absence of the director, has charge of the laboratory. He continues his duties as indicated in the first-year assignments.

The foregoing is a somewhat sketchy outline of a course of study and training that can be carried out with reasonable expectancy of success, provided the conditions outlined heretofore have been observed. The voluntary nonteaching hospitals can and should be a vital factor in medical education. They represent a large percentage of the total bed capacity of the country. They number on their medical staffs some of the finest minds in the profession. Their cooperation in the work must be enlisted in order to provide for the increasing demands for training beyond the university years. The voluntary hospital will be keen to join the movement when it realizes the advantages to be derived from such participation, namely, improved standards of practice in the hospital and consequent benefit to the community. The nonteaching hospital will, however, recognize that its problem is different from that of the university hospital. Objectives are the same, but the means of attainment are somewhat different. The voluntary nonteaching hospital must recognize that its obligations when it receives students are to perform in such a way that the young doctor emerges as a credit to the profession and an honor to the hospital which provided the training.

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CHAPTER IX. NURSING EDUCATION AND NURSING SERVICE

1. Community Needs Challenge the Nursing Profession, by *Constance Long**

THE strong public consciousness of the needs and uses of nursing that was developed during the war years has increased the profession's prestige and highlighted the necessity for designing nursing to fit community needs, with the best possible care of the patient as the ultimate goal.

To achieve this goal, to produce such nursing care, requires constructive, realistic thinking, intelligent planning, decisive action. With the cooperation of hospital administrators, members of the medical profession, and other civic leaders, nurses can chart a navigable course. But first of all, they must agree on where they are, where they want to go, and how to get there.

The decisions made today, the responsibilities accepted by the nursing profession, and the action taken will determine, in large measure, the dimensions of tomorrow's nursing. Nursing made significant advances at a time when all its energies were devoted to meeting critical wartime demands. Are nurses taking full advantage of the momentum gained and are they continuing to advance? Are they ready to meet the present and future needs of society? That is the challenge.

As the concept of the hospital's function in the community expands, nursing service needs become more evident. It is the joint responsibility of the producers and consumers of nursing service to survey those needs, to determine the present supply of nursepower and its adequacy as to quality and distribution. It is the job of the nursing profession to produce the nurses to

meet the needs, to maintain high standards of nursing care.

Hospitals and health agencies have a right to expect all professional nurses with the usual amount of staff education to give expert service in all first-level or staff positions. However, since nursing services are contributed by different kinds of personnel, in a wide range of activity, it would seem economically sound for hospitals to consider using both professional and practical nurses.

This problem involves a decision as to which nursing activities demand the specialized skills of a professional nurse and what proportion of service can be rendered by the practical nurse. It involves also the question of the educational standards and institutions needed to produce qualified personnel and the most desirable location for such institutions. This, in turn, brings up the question as to whether there should be fewer professional schools than there are at present and more schools of practical nursing.

While I shall not attempt here to offer solutions for all today's problems, I should like to present certain premises which I believe might well be accepted, and certain trends in nurse education, brought into bold relief in the past few years, which are well worth further development.

One of the most important of these is the trend towards a system of comprehensive nursing. To accomplish this, basic curriculums will have to be redesigned so

* Adapted from *Mod. Hosp.* 67:48-49, July 1946.

that all professional nurses are prepared to give care which considers both preventive and curative aspects and mental hygiene, as well as the mere physical phases of patient condition. Since the function of professional nursing schools is the production of qualified nursepower, they must be geared to present-day progress, keeping well abreast of scientific advances, both medical and technical.

To meet tomorrow's demands, they should provide broad general education, in addition to professional skills, along with instruction in community organization and the facilities available for continuous patient care. With the development of practical nursing, professional nurses should be able to work with and supervise practical nurses, as well as housekeeping and other personnel.

It is essential to recognize clinical practice as a significant way of learning, rather than as a service to the hospital. Meaningless repetition in the educational program should be eliminated, and well-organized clinical facilities should be available as a practice field, just as they are in topnotch medical schools. Teaching must be facilitated by competent instructors, well-equipped classrooms, laboratories, and libraries.

In short, to produce the quantity and quality of nursepower needed, professional schools must be highly organized institutions, with personnel and academic policies that provide a climate of freedom in which the student can develop professionally, socially, physically, and spiritually. Only with nursing service from nurses so qualified can hospitals fulfill their community responsibility.

Professional schools of nursing will always provide an appreciable amount of nursing service in hospitals and some service in extrahospital fields. However, as has

been indicated, it is advisable to consider such service incidental rather than a primary objective in conducting a school. Over-all community needs for nursing services should be the determinants of instruction and experience offered, instead of the immediate needs of the hospital in which the school is located. Implied in this statement are, of course, adjustments in the amount of student service now rendered and supplementation by graduate professional nurses, practical nurses, and attendants and housekeeping and clerical personnel.

Leaders in nursing organizations are at present working on a practical nurse education program, based on the premise that practical nurses should, on graduation, be prepared to give elementary care to medical, surgical, obstetrical, and pediatric patients; that they should be able to serve in hospitals and homes under supervision and, with less supervision, to give care to patients with long-term illness and to the convalescent and aging, and that, upon graduation, they should be licensed. Thus recognized, they will be entrusted with certain functions, differing from those of the professional nurse, but planned and distributed to the ultimate advantage and protection of the public and patients.

It is unrealistic to assume that good professional nursing is not expensive. But until professional nursing schools can be established as financially independent institutions, it is unlikely that they will produce nurses who fulfill the functions of truly professional women. In designing programs for community action, let us then include the development of good professional schools with provision for financing them.

If it is agreed that student service should be paid for in money rather than educa-

tional benefits and be accounted for in hospital budgets, the whole fiscal plan of the hospital-nursing school organization will have to be reviewed, as will the actual and potential income sources. Four such sources are obvious: student tuition and fees; hospital income; private funds; and public funds—local, state and federal.

Probably one of the most challenging and fundamental problems to be solved is that of whether the cost of student learning balances the hospital income from student service. So long as it is assumed that educational costs equal, or outweigh, the value of contributed service, little can be expected in the way of improving the quality of nurse education. If, however, it is found that student service outweighs the cost of education, financial adjustments should be considered that would benefit the school and the educational program.

Since this would have the effect of increasing the cost of hospital care, hospital

boards and administrators, physicians, and nurses should combine to inform the public as to the costs of good nursing service and their plans to improve such service, along with a joint recommendation as to the soundness of any increased investment that may be necessary.

It is the privilege and the obligation of all nurses, as members of one of the most important health professions, to give serious consideration to all current issues, to analyze existing problems and trends, and to take action. The tomorrow that we looked forward to during the war is here, and the task ahead is tremendous. There is no time for inertia, for complacency, for isolationism. Only by working closely with their natural allies in the various health fields and by encouraging active, enthusiastic community participation can the nursing profession attain its goal: superlative care of the patient and maximum opportunity for health for all our people.

2. Giving the Student Nurse Rural Experience, by *W. C. Coffey**

THE faculty of the School of Nursing of the University of Minnesota has considered for some years the inclusion of rural hospital experience in the preparation of all students. In the fall of 1942 it interested itself in a plan which, while giving needed experience to students, would help to relieve the shortage of graduate nurses in rural areas.

A faculty committee recommended that senior students in the last six months of the three-year program be permitted to elect a six-week period of training and experience in a rural hospital of approximately 50 beds, and in April 1943 plans to undertake the project on an experimental basis were begun.

After a careful canvass of the situation two rural Minnesota hospitals were selected

for the initial experiment. Only hospitals on the approved list of the American College of Surgeons were considered, and each of those selected was located in a county having a county public health nurse.

The objectives of the experiment as proposed by the committee and approved by the faculty were:

1. To help students appreciate community relationships in small towns
2. To develop understanding of the contributions made by various groups in the community to the hospital
3. To help students see more clearly the importance of family relationships in the care of patients, by seeing more of the background of the patient to obtain a more complete picture of patient care

* Adapted from *Hospitals* 18:65, July 1944.

4. To acquaint students with techniques and equipment in smaller hospitals
5. To give an opportunity to observe the differences between general medical practice and specialization
6. To show students some of the administrative, medical, and nursing problems associated with small hospitals
7. To provide some assistance to rural hospitals in their nursing service

The plan provided for the establishment, during a three-month trial period, of two six-week terms. This made it possible to provide six weeks of rural experience to four groups, each consisting of four senior students.

It should be pointed out that the rural experience was not limited to ward practice in the rural hospitals. It involved teaching, too. The content of the instruction included:

1. The objectives of the project
2. A study of the rural community—its size, historical background, predominant activities and industries, economic level, and health needs
3. The attitude of the student nurse in relation to the part she plays in the rural community—personal conduct, social life, and cooperation in related activities
4. The place of the hospital in the community—management, support, how illness is cared for in the rural community, and organizations which give support to the hospital
5. Problems of the small hospital—management, staffing (medical and nursing), financial support, equipment, and predominant types of cases
6. Nursing care in the small hospital—types of patients, standards of nursing care, cooperation with entire personnel, special nursing needs of patients, and special duties performed by nurses

Each student spent a day in a physician's office to get a view of rural health service from the medical angle. Two days were spent with the county public health nurse,

to learn about living conditions and health problems of the community. Students assisted with home deliveries, saw the conditions physicians in rural areas must contend with, observed the techniques which these doctors have developed to meet adverse circumstances.

The experiment proved to be an unqualified success in the opinion of all of the participants. In fact, the only changes likely to be made in the program for the future are to provide the opportunity for rural experience on a continuous, all-year basis, and to increase the period from six weeks for each student to three months.

Perhaps the best testimony which might be cited as to the success of the experiment comes from the superintendent of one of the participating hospitals. He writes: "I want to tell you how much we appreciate the fact that we were chosen as one of the hospitals to have your student nurses come for rural hospital experience.

"We see the value of student nurses affiliating with a rural hospital. It is of great importance because the student is brought face to face with the fact that rural hospitals do some of the finest work in both medicine and surgery; that we as rural hospitals do have the most modern equipment; and our doctors are just as capable as the doctors in the city; and last but not least, the people in the rural areas are just as wholesome, ambitious, friendly, and educated as the average person in the city.

"After seeing for herself that such conditions exist in the rural towns, many a student nurse is convinced that she can and will be just as happy in the small town as in the city, with the result that many of these student nurses will come back to rural hospitals."

As evidence of this important outcome he states that, "Out of the class of seven nurses sent to this hospital for rural expe-

rience, two, after graduation, returned to our hospital to work. We believe the program of sending senior student nurses out

to the rural hospitals for rural hospital experience is one of the greatest steps ever put forward by the nursing profession."

3. Aside to Nurses: Patients Are People—Not Cases, *by Cornelia H. Hinds**

AFTER all is said and done, it is the patient who is fundamentally responsible for the whole elaborate system of hospitals, nursing services, and training schools. For this reason it may be interesting and helpful to the professional group to note the patient's reactions to nursing service.

In checking with my friends and neighbors I find that they share my feelings that in recent years some nurses have failed the patient. When I speak critically I am not referring to all nurses. The fact is, nevertheless, that there has been a growing tendency to concentrate on technique, efficiency, and better record keeping and, in consequence, to overlook the patient as an individual, his needs and desires.

The patient wants to be considered as an individual, not merely as a number. It may be his first experience with hospitals and he is frightened. He may be worried about his family, his finances, the success of whatever medical treatment he is about to undergo. He is at all events sick, and a sick person is naturally more irritable, more querulous, and generally less able to adapt himself than a well person.

It seems to me that it is the duty of the nurse to put the patient at ease, to radiate an aura of comfort and cheer, to calm his fears so that his mind will be at rest and he can concentrate on the business of getting well, which is what he is there for.

I think of late years too many nurses have had an intimidating effect upon the patient. He is made to feel that his questions are ridiculous, his individual reactions to the hospital and treatment of no consequence. One cannot imagine what it

means to a patient to have a nurse willing to stop an extra moment and listen to his troubles or laugh at his joke. I know how deadly it must be to laugh at patients' jokes and listen to their family troubles, but it makes a great difference to the patient's mental state to be able to talk to someone he feels is interested in him as a person.

It seems to me that the ideal of service should be emphasized over and over in the training of nurses. Too often, the patient is likely to get the terrifying feeling that if he should drop dead on the spot, the nurse wouldn't care a bit except from a purely professional standpoint. Naturally, the nurse cannot be genuinely concerned over all the individuals she sees in the course of duty but she should give that impression.

A year before I was married I worked in a public library. Our prime duty was, of course, to serve the public. We were busy. We had records to keep, books and cards to file, cataloging to do, but we were never allowed to forget what our main job was. Any evidence of rudeness or impatience with the public was the unforgivable sin. It is surprising how many lonely people come daily to a public library to hang around telling their troubles to the girls in the open shelf room. We were often tired and had problems of our own, but the public had to come first. So it should be with nurses.

To my mind a good nurse must of necessity be a happy, well-adjusted person herself, one who honestly likes and enjoys

* Adapted from *Mod. Hosp.* 67:53-54, Nov. 1946.

all sorts of people and who has the ability to project herself into the other person's place. Unfortunately, this ability too frequently is lacking.

All of us have had experiences with nurses who have left us with the bed in an uncomfortable position and everything just out of reach. It is terribly irritating for an active person to be bedridden, and this sort of thing is especially galling. Then the patient hesitates to ring and have the situation corrected, knowing that the nurse will convey the impression that the request is utterly unreasonable and time is being taken from other patients who need her services much more acutely.

Another thing that is exceedingly annoying to the patient is the habit some nurses have of treating him as though he were definitely subnormal in intelligence. If a new type of treatment is to be used on the patient a brief explanation first on the "whys" and "wherefores" would be helpful. If the patient knows ahead of time just what he is getting into and the purpose of the treatment, he would be much more cooperative. All of us are much more afraid of the unknown and when one is sick his imagination works overtime.

I remember so well the nurse in charge of the nursery who made a special trip to my room to tell me about my baby. Of

course, the fact that she said he was the best baby in the nursery may have had something to do with my appreciation. Another time when I was in the hospital and had had a very miserable and upsetting day the nurse sent me up the tea service so I could have a cup of tea. The tea was good but the thought behind it helped more than I can ever say.

There is one other small point I wish to make. I don't know whether or not this is done in hospitals. I think it would be helpful if the patient, upon entering the hospital, were given a paper outlining the rules and policies of the institution. The whole thing is so bewildering that the patient often violates a rule or makes a request that is against the policy without realizing it. That gets him off to a bad start. I know that the answer to some of my suggestions is that hospitals are understaffed. The nurses have more than they can do to get through the minimum essentials without taking on any extras. In view of this I think one of the fundamental problems before hospitals and nurses today is the matter of recruiting girls for nurse training. Somehow the nursing service must be made attractive and inspiring enough so that the cream of the high school graduates will want to take up nursing as a career.

4. Massachusetts Pattern for Training Attendant Nurses, by Katharine Shepard*

ALMOST any willing person can be taught to perform the routine duties of caring for patients in the wards, but there is a great danger in the present emergency that the untrained, or partially trained, worker will be entrusted with tasks beyond her ability, which she is all too ready to attempt.

As head of a school for attendant nurses, I feel the importance of teaching the attendants everything they need to make

them competent in their special field of nursing, but not burdening them with knowledge which they will not need in their work.

The first thing then to be decided is the field of the attendant nurse. In Massachusetts an attendant is defined by the law enacted in January 1942 as one whose pur-

* Adapted from *Hospitals* 17:29-30, Nov. 1943.

pose is "to care for convalescent or chronically ill patients or those suffering from minor ailments in hospital and home under the supervision and direction of qualified physicians, and to assist registered nurses in the care of acutely ill patients in hospital or home under the direction of qualified physicians."

Experience shows that a fairly intelligent woman can be well prepared for such duties in no shorter time than twelve months and no longer than fourteen. At least six weeks of this training should be spent in a practice house where she is taught to cook and to go through the daily routine of a well-conducted home, by a qualified dietitian who has majored in teaching.

It is true that if the attendant's future work is to be confined to hospitals, she does not actually need instruction in household economics, but it is unfair to train her for only one type of duty. In our servantless homes of the present day an attendant is of very little use unless she is able to assume the dual role of nurse and housekeeper. In addition to this, when she learns to cook she also learns to use her hands, which is invaluable in her after work in home and hospital.

The advantage of having the training in household duties precede the hospital training is that during this time a foundation can be laid for her nursing work by classes in theory; thereby, the hospital is relieved of some of the teaching.

Her theoretical instruction should include anatomy and physiology to know the structure of the body and how it functions, enough of sanitation to know how to ventilate a ward or room and to dispose of wastes, and how to care for the infant, well child, the senile and nervous patient. She should also have thorough instruction in personal hygiene, behavior, and social adjustments.

Their practice work in the hospital should include simple procedures in the care of medical and surgical patients—both adults and children, the mother and infant, the aged and mental patients, and, if possible, observation of the well child in an institution or nursery school. It would also be well to teach her some ways of entertaining children and occupying adult patients.

If it is decided that the field of the attendant nurse is wider than outlined in the law drawn up in Massachusetts, then the training should be longer and more extensive, but we must be careful not to build on a shaky foundation.

The students in our school can be roughly divided into two age groups—the young girl between eighteen and twenty-two and the older woman between thirty-five and fifty. Nearly 50 per cent of our students now in training are high school graduates, but the younger ones would not be eligible for a hospital school as they took the general course and were usually in the lower half of their class.

Those over thirty-five often have a better background, both social and educational, but they are beyond the age limit for the three-year course. From this group come the best attendant nurses on private duty, partly because they understand the needs of a home and have the habit of accepting responsibility.

Nearly all of our students have earned their own living before entrance. Fifty per cent were domestics and the remainder were factory workers, clerks, housewives, and ward helpers.

In defining the proper field of the attendant nurse, we must consider the three general nursing problems with which we are faced today—nursing for the armed forces, the needs of the hospitals with their depleted staffs, and the civilians who are

visited by public health nurses or who must have continuous care in their homes.

There is at the moment nothing the attendants can do for the armed forces though there may be a field of usefulness for them in the chronic hospitals which will be established for the care of the wounded after the war.

There is an increasing demand for attendants to do general duty in hospitals. A recent figure shows that 5,000 more attendant nurses were added to hospital staffs all over the country last year.¹ With proper control and supervision they can relieve the registered nurses of much routine work in the wards, the great danger being, as I have said before, that the exigencies of hospital work at the moment may force them into positions to which they are unequal, and it will be difficult to put them back in their proper place when the registered nurses return from duty overseas.

The Household Nursing Association believes that in the home the attendant has her greatest usefulness and finds her greatest satisfaction. We also believe that even in the home she relieves the hospital burden by caring for patients who are being discharged from hospitals earlier than ever before and for many who must have care but do not need to be hospitalized.

Student attendant nurses are ideal for the general hospital of less than a hundred beds which cannot afford to be staffed by registered nurses and cannot meet the requirements for training student nurses.

The proportion of student attendants to registered nurses naturally varies in different hospitals, but one of our affiliated hospitals with a sixty-five-bed capacity and twenty-five bassinets has found that a satisfactory working arrangement is to have eighteen student attendants with fourteen registered nurses, one of whom is almost entirely employed in teaching the

attendants and supervising their work in the wards.

Not only are the student attendants ideal for the small general hospital, but the small general hospital is the ideal place for their training, as it is possible to keep in touch with each student and give close supervision to her work. There is also more likelihood that the students will get the kind of nursing experience they need.

Another very important reason is that if trained in a large hospital they are mixed with student nurses whose educational activities they cannot share. This, naturally, leads to discontent on the part of the attendant group. They feel themselves more necessary in a hospital where their training is of first importance.

Some hospital trustees, seeing their revenue shrinking and their student nurses taken off the wards for class instruction, have conceived the idea that a lot of bright-faced attendants can carry the ward work with very little training and supervision. It is the impression of many who are unfamiliar with the difficulties of training attendants that they need less instruction for their special work than do those trained in hospitals. Exactly the reverse is true. They require much more concentrated effort than the student nurse and also require constant supervision.

In selecting the nurse instructors for attendant nurses, it is very important to look for adaptability rather than a college degree. Besides adaptability, the instructor must have infinite patience, understanding, love of the job, the ability to impart knowledge very simply and in a graphic manner, and must be able to make the attendants realize their limitations without discouraging them.

¹ *Professional Nursing*, May 1943.

Instead of a group of young women all about the same age and with much the same educational background, there may be in one of our classes a grandmother whose formal education is thirty years behind her; a woman who has received what education she has in a foreign country and who may also have language difficulties; a young girl who has just managed to scramble part way through high school; and a business woman who feels it wiser to spend her later years in the nursing field rather than in competition with youngsters just out of business college.

The need for attendants being granted, their area of usefulness defined, and a decision made as to the kind of preparation they should have, we must then face the

vital question—where are we going to get them?

In recruiting any kind of worker, we are in competition as never before with industry, which fills the newspaper with appeals to women to learn trades for the good of their country, and offers high wages in return for their contribution, while in nursing we offer long hours, hard work, and, for attendants, no advancement.

We cannot offer the attendant the opportunities of a graduate nurse, and she can hardly expect it after only one year's training. But something might be done to give her a feeling that she really is important to the war effort. Even a distinctive uniform might help to this end, or a title which would glamorize her occupation.

5. The Shape of Things to Come in Nursing Service, *by Dorothy Rogers Williams**

THE other day I heard of a group of friends who were invited each year to welcome the New Year with their perennial host. Each was required to bring, in a sealed envelope, his prophecy of events to come in the twelve months ahead. The envelopes were placed in a box to be kept under guard until the year was gone. The high spot of the evening came when the prophecies of the previous year were withdrawn from their box and read for the amusement and amazement of all assembled.

It is the courage of those self-appointed soothsayers that has led me to conjecture a possible development of nursing service practice in our hospitals in the years after the war. Certainly, I have no more assurance that my prophecy can be fulfilled, if as much, than have the members of the New Year's party. But present developments and past problems may be used as a guide, though month-to-month changes

make it difficult to see clearly around the corner of the future.

Graduate staff nursing, born of the dual need for protection of the education program for student nurses and for providing good nursing care to the patient, will be as essential a part of hospital nursing service in the days after the war, when graduate nurses are again available, as it was before the call to military service. That graduate nurses have been a rapidly diminishing group during present months has but emphasized rather than depreciated their important contribution.

Twenty-five years of experience with this type of nursing has not removed such oft-recurrent problems as frequent turnover and persistent instability among the group. In the past there was little opportunity for professional advancement, for the stimulus of expanding responsibility, or for financial

* Adapted from *Mod. Hosp.* 62:53-56, June 1944.

recognition. Staff nurses soon lost interest in their work and sought other fields of endeavor.

It is of real significance that all too frequently a nurse described her service as "just staff nursing" yet the ability to give skilled bedside care to the patient is the very heart of the nursing profession. It is admittedly fundamental to the achievement of the whole hospital field and of paramount importance to its success as a community health agency. Some solution must be found to this problem of long standing; no longer can it be ignored or persistently lamented without positive action being taken on it.

Critically ill patients, of whatever administrative classification, must have skilled and extensive nursing care. In the past, those whose personal budgets could meet such additional strain purchased the services of the private duty nurse. Others, who could not do so, became the serious concern of the nursing director who, somehow, somewhere, must find those precious additional nursing hours. She only hoped she could still maintain the service essential to all her patients and meet the requirements of her student educational program.

When the private duty nurse was desired, she was summoned from the nursing registry and was usually selected because she was next in line on the list rather than because of her particular qualification for the task at hand. As a temporary and courtesy member of the hospital nursing staff, she was free to carry out her professional responsibilities as she deemed best. For the most part she was fully capable of such achievement, but many times the errors or dissatisfaction of patient, nurse, and doctor could have been avoided had the nurse had the advantage of well-planned guidance from the nursing service director.

When her patient reached convalescence,

the nurse's services were frequently retained long past the days they were needed. Valuable nurse-power of a skilled worker was sacrificed for the pleasant, but seldom essential, duties of companionship. This practice is hardly conducive to growing professional life or to efficient planning for the best use of available nursing skill.

All of these aspects of staff and private duty nursing are familiar to every nursing director and hospital executive. Their importance lies in their significant proportions in past experience and their implications for future planning.

The achievements of wartime months and years would be futile, as well as discouragingly difficult, if something of value could not be gleaned from the experiences thus forced upon us. A Macedonian cry for help came from hospitals everywhere. To their undying credit, the women of the communities all over this land have come, and are still coming, to volunteer their aid in carrying the daily load of hospital patient care.

At first they came with no other preparation than a sincere desire to help, innate ability, and judgment developed in meeting the demands of their personal lives. As the need for helpers in bedside duties grew increasingly urgent, they were given a brief, carefully constructed course of organized instruction, sometimes by members of the hospital staff, more frequently by such an outside agency as the Red Cross volunteer nurses' aide corps or the Office of Civilian Defense.

True, the background of education, cultural advantages, and maturity of experience enable these volunteers to fit into the intricacies of hospital routines somewhat more easily than did the average ward helper employed in that capacity. But two years of working with this type of volunteered nursing service has demonstrated

beyond peradventure that a large part of nursing routine, as well as care of equipment, can well be performed by nonprofessional workers who have had some brief instruction in their work.

To remove from the professional nursing load the time-consuming work of making empty beds or beds of patients not acutely ill and to spare nurses the moments spent in taking temperatures, giving morning and evening personal care, and feeding patients who need such assistance are to make a priceless contribution toward balancing fleeting moments with the daily demands of nursing.

Never before had accepted standards of nursing care admitted that any but the graduate registered nurse or a closely supervised student could safely be entrusted with such duties. Necessity made rethinking and replanning imperative—wisdom makes continued use of such knowledge intelligent procedure.

Certainly, there can be no expectation of lessened hospital census in the years ahead. Hospital insurance will draw an increasing number of members to its rolls; therefore, more persons will be availing themselves of hospital services when needed. Present-day apartment living of the cities and the small homes of the suburbs offer no additional space to be devoted to sick members of the household, nor is it consistent with good judgment to run the risk of prolonged or complicated recovery by dependence upon makeshift home equipment when every modern facility needed for good care is available in the nearby hospital.

Less than 10 per cent of babies are now born outside institutions each year. Doctors of the community are increasingly intent upon hospitalizing all patients who need watchful care that can be given only in the hospital. Therefore, the demand for well-

staffed nursing service may well be an accepted need of the future.

These are the problems of the past and the developments of the present. What prophecies do they portend for future organization of staff nursing service? Only the review of events at some distant New Year's stock-taking can answer that question with any certainty. But proposing plans and dreaming dreams is everyone's privilege and is an absolute necessity for those who would avoid past pitfalls or who would be ready for fast-moving changes.

It is acknowledged that one of the major responsibilities of any hospital is the giving of adequate nursing care to patients; therefore, every possible step must be taken to meet that obligation. Adequate care means sufficient numbers of persons to provide needed nursing hours. It means maintaining definite standards and making possible careful direction and development of the nursing personnel.

To be sure, this calls for a generous budget and the corollary of careful planning for expenditures within the department. This implies full-time able leadership and is best accomplished when the nursing service is set up as a separate function from that of the administration of nursing education. If these demands seem heavy they are not insurmountable.

Assuming that the hospital has accepted the demand for a sufficient number of staff nurses to meet nursing hour requisites, the question becomes that of judicious use of those nurses. Most patients will not need more than the average number of nursing hours established for various types of clinical classification by earlier studies. A few will require, and must have, more extensive nursing care.

For patients in private or semi-private divisions, an additional charge for additional nursing care should be made. This

practice has precedent in the laboratory service of the hospital where certain routine laboratory service is included in the room charge, but when extensive or costly tests are made an extra charge is added.

All nursing service would be provided by the hospital nursing staff and all independent private duty nursing, as now practiced, would be discontinued in the hospital service. Obviously, home care of the sick and post-hospital convalescence would still provide some market for the private duty nurse who chooses to continue to function as a free-lance worker.

The staff of nurses on the hospital roster would be divided into junior and senior staff nurses. The first group would be made up of recent graduates and of nurses returning to this form of nursing after long absence. They are less experienced in meeting nursing problems with the full authority of their professional status but are sincerely interested in extending their abilities through the practice of bedside nursing. Their salary and commensurate increments would be consistent with prevailing staff compensation; their assignment of duty would be to care for patients needing general nursing care.

When a junior staff nurse had demonstrated her ability to handle more complicated nursing problems and to exhibit sound judgment when faced with unpredictable developments, she could be recommended for promotion to the rank of senior staff nurse by her head nurse or departmental supervisor. Such promotion would be dependent entirely upon earned recognition and not upon length of service. It would carry with it increased salary, extended annual vacation, and other feasible means of acknowledging demonstrated improved skill.

Senior staff nurses would then be assigned to patients needing extensive nurs-

ing care, even to the point of full-time service and for as long as needed. But when the urgency for such generous care of the one patient was passed, the nurse's assignment would be changed to the next person who needed her abilities.

Such use of more-than-average nursing care should be allocated by the director of nursing service or her staff in close cooperation with the clinical physician in charge of the patient and in agreement with the financial provision for this service.

Often, the critically ill patients will be those in the public wards where no personal funds are available for any fees, let alone extra nursing charges. But this is no change from present conditions that make necessary the allocation of a portion of the annual hospital budget to free-care work. Again, the increased income of all hospitals from hospital insurance fees is to be noted as compensation for this financial load.

The third step in making best use of professional nursing service under this proposed plan is to include among the nursing department employees a sufficient number of nonprofessional ward aides who have had training in routine nursing care. To them would be assigned the nursing tasks that do not call for professional knowledge for satisfactory performance. Workers in this group would also have such salary and perhaps differentiation of uniform as to distinguish them from ward maids responsible for dusting and other ward house-keeping duties.

It is my belief that in the end budgetary requirements for salary differentiations would be compensated by greater achievement, in less time and with greater effectiveness, by persons whose potential abilities are equal to the scope of their responsibility.

The advantages of such a reshaping of nursing service administrative planning are easily seen. Most important of all is the fact that the patient would benefit. Nursing care would thus be available according to patient needs and under the helpful, watchful guidance of the nursing department of the hospital. It is hardly consistent with good judgment or fair practice for the hospital authorities to declare their intent to give needed nursing care to their patients and then to assign to the nursing department the task of fulfilling that obligation without providing the personnel and means that are necessary to make success possible.

Second, this plan gives dignity and professional recognition to the important fundamental service of staff nursing. It provides incentive to continued service and growth of individual abilities for the staff nurse herself. It makes possible the acknowledgment of the wide experience, additional skill, and professional knowledge that the older nurse may bring to her staff appointment.

The private duty nurse seeking a hospital staff appointment would feel that full appreciation had been given the particular abilities developed on her private service, since her promotion to senior staff nurse

could be earned after very brief preliminary demonstration. As a staff nurse she would have the stimulus and support of the hospital group activities, plus the challenge of professional work that calls out her greatest efforts.

Third, it makes full use of all available potential nursing ability. To place a skilled worker in a non-skilled task has long been recognized by industry as a costly plan. Work that demands only a portion of attention, that soon takes on the drab aspects of monotony, will rapidly dull the edge of possible achievement—a costly sacrifice when years have been spent in professional preparation.

Putting such a plan into practice necessitates careful administration, complete understanding and acceptance of its principles by all who undertake to put it into effect, and totally objective dealing with questions of promotion and recognition. It cannot be accomplished by the director of nursing alone. Neither can it be successful without the aid of well-prepared head nurses and departmental executives. The same demand will be made of any hospital planning of the future, for successful leadership is vital to all constructive progress.

Perhaps all this is only a prophecy but it is a prophecy with a plan.

6. Stabilize Nursing Service through Accurate Personnel Records, by *Charlotte C. Dowler**

ONE of the most important factors to be considered in the selection of personnel is the human element and its variances. One employer says, "If I could find a way of choosing and hiring employees who are half as good, relatively, as the machines I buy, my success would be enormous."

Many experienced personnel managers have the rare gift of analyzing and selecting employees on a basis of good personal

judgment, but if their accomplishments are to be of value to the entire organization, their impressions and the information they obtain in regard to each worker should be recorded and filed. A good memory is a poor substitute for an adequate record system.

* Adapted from *Mod. Hosp.* 58:63-64, June 1942.

In selecting a graduate nurse for a staff position in the hospital, two features are distinctive. In the first place, the director of nursing service is thoroughly familiar with the detailed requirements of the positions on her staff. Secondly, because of the uniformity of basic training that each graduate nurse has received, her selection for the position of staff nurse differs considerably from the selection of other workers in the hospital. However, if the applicant is accepted only on the value of her basic training, her adjustment and placement on the staff become a matter of trial and error until she is appointed to the department for which she has the most preparation or in which she finds the greatest interest.

The staff nurse is important to the hospital organization; she must carry serious responsibilities in dealing with patients' lives; she must cooperate fully and willingly with other members of the nursing staff and with the medical staff. To the relatives and friends of the sick, she represents the hospital policies and she acts as a representative of the hospital in community relationships.

For these reasons, the records employed in the nursing department should furnish information regarding the general education, professional advancement, social interests, and cultural training of the applicant.

As a means of ascertaining the quantity and quality of nursing service rendered for the large expenditure of salaries made by the hospital, service and performance records become a valuable source of information. In the course of investigation conducted for this study, records of continuous service for the staff nurse were found to be almost entirely lacking. Only information needed for time-book and pay-roll control was available. There were no consist-

ent records of service changes from department to department or of the types of service performance rendered by the individual.

The failure to provide service records is not always a matter of neglect or carelessness; in many instances it may be attributed to the fact that the staff nurses are often recruited from the graduates of the particular hospital in which they have spent their student years. For this reason, their abilities and personal qualifications are known to the management of that institution and much information regarding these nurses is available in the student files.

With the present increasing demand for staff nurses, most hospitals now find it necessary to employ graduates from various schools and localities, and the need of records, both of service and of performance, becomes imperative.

Without written reports on which to base service ratings and the evaluation of performance, judgment of the worker must be obtained by verbal reports from the department heads. Such reports can be of temporary use only and are more likely to be biased by personal likes and dislikes than is written evidence. Verbal reports also deprive the director of an opportunity for accurate comparison of the worker's efficiency in various departments or of using the records as a means of study in personnel management.

Service and performance records also serve as an accurate means of determining the effectiveness of the method of selection and placement of the employee. If no follow-up report is kept of the work of the employee in service, there is no basis for judgment as to the effectiveness of the program of selection and placement. Unless the employee is so inefficient or maladjusted as to cause serious disruption in the department or actually to leave the service, his shortcomings will probably receive lit-

tle attention. In such cases, the inefficient, unhappy worker may be a source of discouragement to the department for some time, whereas if the condition were measured by an accurate evaluation of service and adjustment and brought to the attention of the management, constructive assistance might be given in the form of in-service training or readjustment in another department. On the other hand, the unusually capable employee may be taken for granted and receive no recognition of his capabilities.

A sound basis for the promotion and transfer of workers within the organization is as important as proper selection. There can be only a limited number of employees in each group who are content to remain on a given job indefinitely without the prospect of future advancement. Without the stimulation of new interests and the satisfaction received from the recognition of work well done, even the best employee will relapse into routine performance. The failure of management to provide a recognized program for the transfer and promotion of personnel results not only in the discouragement of the capable individual but also in actual loss to the organization of employees who might prove valuable.

As a foundation on which to build a satisfactory basis for the transfer, promotion, or discharge of employees, the personnel manager should have available a full record of the individual work performance and progress of his employees. Without such evidence the program of advancement becomes a matter of personal opinion, favoritism, or seniority. These methods are quickly recognized by the employees as unsound and the morale of the working group falls. Advancement in an organization by reason of seniority is of value only if the promotion or transfer is based on

recognition of ability as well as tenure of service.

As a means of providing management with the facts on which to base the transfer, promotion, or discharge of employees, the work of the individual should be carefully evaluated and recorded. Here again, records serve as the tools.

One of the principal aims of good personnel management is the maintenance of a stable work force. A heavy labor turnover is a matter of great expense and dissatisfaction to the organization. There are, however, many factors in each organization that should be carefully considered in reckoning the significance of the labor turnover. The mere statement of the percentage of change does not portray a clear picture. A study of the facts in each case must be made and the findings carefully analyzed. For this purpose, the personnel records serve as the best source of information.

While making investigations in the course of this study, I collected information that placed the rate of turnover of the graduate nurse staff in hospitals at a percentage ranging from 15 to 100 in a year. What are the underlying causes of such surprising changes in the work force? In view of the statement that industry recognizes a cost of from \$30 to \$100 in replacement cost each time a new employee is added to the staff, a careful study of the facts would be of great advantage.

The stabilization of the nursing service in the hospital is a matter of the utmost concern to all administrators. Many conditions outside the hospital, however, influence the stability of this group, as, for example, the demands of the war program. Also, married nurses who previously had proved to be dependable staff members have become a "floating" group, moving to

various locations to join their soldier husbands or feeling free, when alone, to seek more lucrative positions.

All such activities are beyond the control of hospital management, yet they seriously affect the stability of the hospital nursing service. In the face of such trying conditions, it is more than ever essential to good management that the hospital make

use of all means for the study of its personnel program in order to determine exactly the reasons for the high turnover percentage. Conditions outside the hospital are sometimes blamed for effecting changes that might well be credited to working conditions within the organization if the exact causes were determined by careful study.

7. Maintaining the Quality of Nursing Service in Times of Emergency, by *Clare Dennison**

NURSING service and nursing education are so integrated, so interdependent, and so useless when dissociated that we who try to direct in both fields rarely think of either as a separate entity. We are certain that the quality of nursing service cannot be maintained if the standards of nursing education are inadequate, and we are certain that nursing education is a waste of effort unless it is expressed in good nursing care. We know that no matter how carefully designed or well taught our curriculum may be, the achievement of the average student nurse will be on the exact level of the nursing care which through example and expediency she has seen and practiced.

I must begin by blasting any forlorn hopes in stating a fact which some of you may have suspected. I do not know how to maintain the quality of nursing service in the present crisis! I do not believe that anyone can offer a formula to suit all needs. I have put together a few thoughts, very few of which are original, in the hope that a frank discussion of the difficulties which we all face in our efforts to maintain a nursing service may help us to find the solutions most applicable to our own problems.

We must not confuse nursing service with nursing care for the terms are by no

means synonymous. There is a vast difference between the services rendered by nurses and the nursing care of patients given by nurses. Nursing care has been well defined as "adapting prescribed therapy and preventive treatment to the specific physical and psychic needs of the individual,"¹ but Effie J. Taylor expresses my interpretation of that phrase. "The real depths of nursing," she says, "can only be made known through ideals, love, sympathy, knowledge, and culture and expressed through the practice of artistic procedures and relationships."² Nursing service in our hospitals may cover all this ground but also include much more which is not nursing care. Here we could list such activities as keeping and sending to the cashier the charges for medical, dietetic, laboratory, and hospital services not routinely given to all patients; keeping hospital statistics; maintaining an economical use of large quantities of supplies, some of which are not used by nurses; serving meals to patients' visitors; managing the administrative details of the admission and discharge of patients; arranging for the

* Adapted from *Am. J. Nursing* 42:774-784, July 1942.

¹ A concept of nursing, *Am. J. Nursing* 33:565, June 1933.

² Effie J. Taylor, Of what is the nature of nursing? *Am. J. Nursing* 34:476, May 1934.

transportation home of the discharged patient; relaying telephone messages to patients' visitors; keeping a critical public pleased with the hospital; preserving good relationships with at least a dozen other departments in the hospital not concerned with the bedside care of the patient but necessary to that care; and filling in the gaps whenever any one of those departments falls short of an adequate performance. I wish to emphasize that these activities are for nursing *service*; they are *not* for nursing *care*.

Very few of our patients know the difference between nursing care and nursing service, and some of them confuse nursing service with hotel service. Those of you who have been in continual association with hospitals for the last quarter of a century will agree, I think, that the last decade has brought us not only more patients but a great change in the type of patient we receive. The public has much more information concerning sickness and health, and it has radically changed its idea of a hospital's function. We remember an era when patients came to the hospital as a last resort, and once there put themselves almost unreservedly under its direction. They expected to get along without all the conveniences of home and were not concerned about the size of their rooms, the view, or the decorations. They expected to see a few relatives and fewer friends at short and stated intervals and did not expect to carry on their business or social activities while in the hospital.

That era has passed! We still nurse those who are desperately ill, but a large percentage of the *increase* in our census and in the amount of nursing service is composed of and accounted for by those who come for observation and diagnosis. It is good medicine and good standards of public health which bring this group to the

hospital before the onset of disease, but the presence of this group has changed and multiplied the demands on nursing service to a degree difficult to measure or define. Many of these people are not sick or even uncomfortable. They come for short periods of two to seven days during which they may not need what we call nursing *care*. They must have the kind of *service*, however, which takes hours of nursing time and very careful attention because in these few days these patients undergo several laboratory tests. Carelessness in the performance of these medical orders means a repetition of these tests and expense to the patients or to the hospital. We cannot, therefore, give the care of these patients to any other group of workers unless those workers have intelligence and education above the average level.

Not many years ago the voluntary hospitals with closed staffs had a rather small number of attending men in relation to the census. These men had received much of their training at the bedside and depended largely on actual bedside observation for diagnosis and treatment. Today on some of our floors we may have as many doctors as we have private or semi-private patients, and the scope and precision of modern laboratory tests coupled with the type of nursing service provided have made it possible for them to practice excellent medicine with markedly less contact with the patient. Some of these men have very little idea of what constitutes nursing care for they almost never see a nurse giving that care. They leave their orders (often expecting the head nurse to transmit them to the interns), take her reports, and call that nursing service, taking it for granted that the régime will run smoothly. Little by little they widen their expectation of that service to enclose larger areas, not only because the service is al-

ways *there*, but because it is under direction which brings the results they cannot always get from their own staffs. For instance: when a young man doing research work in the school of medicine came to me with a large bunch of forms on which he *said* he expected the interns to write observations concerning reactions after the administration of a treatment, I naturally asked how the nursing service could help him since it was a situation which concerned the observations made by a doctor. He explained that he hoped the nurses would see that the interns *got* these forms. It was, of course, a Cranford incident; I knew, and he knew that I knew, and I knew that he knew that I knew, that he expected the nurses to accept the responsibility of these reports so that they would either hound the interns into writing them or write them themselves and persuade the interns to sign them. He knew, too, since he was not pinning the responsibility on any particular staff member, that this procedure was probably the only way he would get enough response to provide valid data, and the failure to comply would be, to him, a lack in the nursing service. He would argue that it was a little matter involving very few minutes, which was true! But all these little matters have been multiplied by so many men that they now require hours instead of minutes and add a burden not legitimately theirs to the head nurses' already heavy load.

The hospital administrator could tell us that head nurses were not the only burden bearers. In the last twenty-five years he has watched his hospital which was designated for eleemosynary purposes and once supported by philanthropy change to an institution which must, in part at least, pay its own way. He stands between a staff which appears to believe that money comes like manna from heaven

and a public which, on the whole, cannot pay for hospital care. His position is not enviable. Not only have investments shrunk and gifts become nonexistent, but demands and expenses have skyrocketed. The patients and their relatives expect hotel service. The doctors expect to be furnished with a good supply of all the newest appliances and drugs developed for diagnosis or treatment; and nursing service—that insignificant item in the budget of 1920—has become a red-inked source of agony! These men can see that food, laundry, maintenance, telephone, and pharmacy service must cost more; but they always paid for them and these services have grown. The costs of nursing service, however, seem increased out of all proportion, and clever as many of these men are, they do not seem to see that this disparity is because the hospitals used to get nursing service for a little outlay for instruction plus the maintenance of student nurses. These administrators are inclined to believe that the rise in cost is the result of nursing education, and they either state flatly or imply that nurses have been educated out of all usefulness to the hospital. Actually the education is for a wider usefulness, and it is odd that none has been astute enough to recognize the financial benefits hospitals are receiving because nursing education has raised nursing to a profession,—and the members of a profession, in contrast to the members of a labor union, accept low salaries in return for long hours and heavy responsibilities. Very naturally, since nursing service must be paid for, the administrators seek a cheaper type of worker, saying that in reality very little education is necessary for the performance of what they call “simple nursing care.”

How simple *is* the care which goes on day and night in the hospitals? Let us

look at the record. During the latter part of 1940 and the first of 1941 our nursing office did a spot study on the treatments and procedures which could not be given to subsidiary workers. We did this three times at two-month intervals for twenty-four hours, and while we know the findings are not conclusive, since so many head nurses, assistant head nurses, and night nurses collected the data, they are rather interesting. Outside of the operating room, the labor and delivery rooms, the outpatient department, and the emergency department, and excluding all diagnostic and research tests, we found about one hundred items covering periods of time ranging from approximately two minutes as in taking the apex pulse to twenty-four hours of constant attendance as in watching patients in respirators. From an average of 473 patients, 109 were ordered blood pressures in intervals of every fifteen minutes to once a day. Sixty patients, or one patient in every eight, received parenteral fluids or transfusions, and while these were not done by nurses, they required the help of a nurse, and on two of these days patients were receiving continuous intravenous fluid and required constant attendance. The nurses gave gavages, placed fifth leads for electrocardiograms, and applied suction to surgical wounds, tracheotomies, chest cavities, and throats.

They managed the apparatus for Wangenstein suction, tidal irrigation, and bladder decompression. They irrigated eyes, cecostomies, colostomies, draining wounds, urethral and ureteral catheters. They gave colonic irrigations. They did artificial respiration in the interval needed to obtain a respirator, and then started the operation of the respirator. They applied sterile compresses and painted lesions. They did approximately 230 dress-

ings in a day, and this does not include the times these dressings were taken down to show the wound to a surgeon. They did catheterizations, sitz baths, and turpentine stupes. They used the Danzer apparatus. They gave insulin and taught the patient or his relatives to give the drug and examine urine. They administered approximately 1,500 medications daily, by mouth or hypodermic. They had an average of seven patients a day under oxygen therapy and "specialed" patients after craniotomies, tracheotomies, and the usual surgery. They assisted with lumbar punctures, thoracenteses, paracenteses, and phlebotomies.

While all this went on, they met the usual expectations of the staffs. They knew, night or day, without direction, what to watch for and report for the thyroidectomies, the breast amputations, and the prostatectomies. In general, it was not necessary for the surgeon to give specific directions or to see his patient for several hours after the operation. It was not necessary to tell the head nurse to watch for any toxic symptoms, even after chemotherapy; it was taken for granted that all this would be done. It was understood that the nurses would know how to administer any drug—and pick up any error in writing the order. They would not be exonerated from responsibility if by error 4 cubic centimeters of belladonna was written instead of .4 cubic centimeter, had any nurse followed the written order. The nurses would have been condemned if a patient scheduled for a cataract went to the operating room with even slight symptoms of a cold—or if any patient went there with a premonition that he was going to die. It was not a simple matter to decide on the evidence of symptoms shown whether or not to call the doctor at 2:00 A.M. or to calculate to a nicety the

time the doctor should be called in order to appear in the delivery room at the proper moment, but the right decision was usually made. It would have been very inconvenient for all concerned during those days if the nurses had not known a good deal about the apparatus used in orthopedics, the machinery of the respirators, the oxygen tents, and the suction machines, but the fact that they did know was probably never noticed, so long have nurses been considered an extension of all the services in the hospital. In addition to this, each nurse accepted the responsibility for all services rendered her patient by any subsidiary worker, and every minute of every twenty-four hours the nurses were responsible for the prompt observation and reporting of any change in the condition of any patient.

We call these activities nursing care and their differentiation from nursing service is fairly clear. But when we consider the diagnostic tests now used we cannot so easily mark the difference. When patients are ill we would say that these procedures constitute nursing care, but many of the patients who come to the hospitals to take these tests are not ill. We need to do more studies before making positive statements, but a careful survey of the medical records of fifty-four such patients shows that during stays ranging from one to seven days, little or no nursing care was required. These patients had x-rays, basal metabolisms, phenolsulfonphthalein tests, gastric analyses, cystoscopies, gastrointestinal series, and various blood tests and, so far as nursing care was concerned, these procedures could have been done by any intelligent and well-instructed person.

I do not imply that these routines are easily managed, although the uninitiated might conclude from reading the nursing techniques manual that anyone who could

read and tell time could follow the directions. The catch lies in the perversity of human physiology and behavior which often refuse to react as scheduled. Mr. Black rejects gall bladder dye. Mrs. White cannot tolerate the sugar given in the glucose tolerance test, while Mrs. Green accepts everything graciously but cannot believe that "one little drink of water" will completely ruin a test. The nurse adapts the tests to these individual idiosyncrasies and does it successfully because she is intelligent and knows the purpose and the action of the tests. This equipment will not suffice her, however, if she has not also been able to make the patient understand and follow directions, and any who believe this to be a simple task should try to make these explanations to a few assorted patients.

I submit that all this does not add up to simplicity; and I contend that the head nurse who can allocate this work to the different abilities of staff nurses, student nurses, clerks, ward helpers, orderlies, and volunteers and on the whole reach a high degree of success in her planning is a very efficient person.

Administrators, doctors, and nursing service directors must decide how much of this service now given is so essential that it *must* be given during this crisis, who shall give it, and what adjustments can be made to give it under conditions which are economical of time and staff. It seems evident from current literature that there are individuals who have yet to be convinced that we face a problem. The lack of contact with reality found in the writer who feels it would be helpful if we made a daily shift of staff from oversupplied to undersupplied wards is as remarkable as his apparent belief that such a plan would be a new idea to us

after all our years of staffing hospital divisions. Another writer writes:

"The removal of one-third or more of the licenced physicians from civilian practice, and those largely from the younger, more vigorous age groups will increase the load on the remaining less vigorous members of the staff by 50 per cent or more.

"There are likely to be two direct results from this increase of load. In order to conserve their time the physicians will delegate an increasing number of their professional procedures to nurses and will send a greater proportion of their home cases into the hospital. This in turn will throw an increasing load on the nursing department. It is entirely conceivable that some hospitals may find it advisable to select a small number of especially well-qualified nurses for training as 'flying squad specialists' to take over those professional procedures which the medical staff see fit to turn over to them. Such a plan would greatly increase the confidence of the physicians and their readiness to delegate these procedures. Just as nurse anesthetists have 'found their place in the sun' so other nurse specialists may become an accepted part of professional routines.

"But this delegation of added duties to the nursing department added to the depletion of the force by nurses entering the military services will in turn require new adjustments in nursing routines. Extensive studies have indicated that approximately 50 per cent of the general duty nurses' time is spent in duties which could be performed by less well-trained aides under supervision.

"Another solution is by revision of some of the nursing procedures. Such of these procedures and routines as have been given intensive study have shown possibilities of decrease in time consumed by as much as 40-75 per cent. While such reductions

could not be made in all procedures and the necessity for adequate unit supervision will remain, it is more than probable that the majority of hospitals can readjust both personnel and procedures to such an extent as to compensate for both the added duties delegated to them by the medical staff and for the depletion of their existing nursing personnel, and this without prejudice to the care and welfare of their patients."³

I will not comment on the difficulty nurse anesthetists have had to keep "their place in the sun," or ask if the writer has any idea of what is implied in giving 50 per cent of the nursing service to aides "under supervision," but I must say that I find it difficult to imagine how much more responsibility beyond that already delegated could be carried by these "flying squad specialists" without giving them a doctor's training; that is, unless those treatments which we think require the skill of a highly qualified person are much less important than nurses—and patients—have been led to believe.

When we consider a wider use of the subsidiary worker (the ward or division helper), we have unfortunately to withstand a mistaken but evidently sincere conviction held by many doctors and administrators. Some of these men are vocal in the belief that nurses discourage any extension of the use of these workers lest in time they usurp the place of the nurse or prove nursing to be so simple that very little education of the worker is necessary. As the director of a nursing service who has used and observed the use of this group for fifteen years, I want to make our position clear in this matter for it is evident that even the nurse administrators

³ Warren P. Morrill, Facing war demands, *Hospitals* 16:37, Mar. 1942.

who do not have our problems fail to understand the whole situation when they predict in writing that more and more of the "routine care" of the patient will be given to the subsidiary worker and the nurses will progress to more important procedures.

In the first place, nurses themselves advocated and started the use of subsidiary workers because they knew that some areas of work traditionally allotted to nurses could safely be given to untrained people. It was work which nurses did because no one else was there to do it and its performance was necessary for the clean and comfortable environment of the patient. *But it never was considered nursing.* It was housework monotonous to the graduate and, once learned, unnecessary to the education of the student. Hospital authorities were willing to make the change because it seemed an economy. The ideas that prompted this departure from tradition are still sound. Under supervision a carefully balanced ratio of these workers can be used with safety and economy, and indeed they *should* be used! It does not logically follow that an extension of their work will be either safe or economical.

In the second place, and because hospitals do not compete with salaries paid by industry—especially now in defense work—a large portion of this staff is of the calibre which industry rejects because of youth or inefficiency. They cannot be left to such simple tasks as dusting, cleaning beds, making empty beds, or tidying bedside tables without a good deal of supervision, and the heavy turnover in the group makes much of the supervision unproductive. The expense of the group, therefore, is not completely apparent on their payroll. This is not a self-motivating staff! They waste materials and time, and even when work-lists are put in their hands

many cannot progress from one task to the next without prodding.

We are not unwilling to use these workers. We can and do use them to the extent of their ability, and here it must be remembered that there is a big difference between performing one task over and over again as in industry and adapting different procedures to the needs and desires of variable human beings. What dismays us is the evident expectation that with an enlargement of this group we can give the same kind of nursing service now maintained and assume more of the work formerly done by the medical staffs. We are further dismayed by conclusions on the use of subsidiary helpers made on data compiled for other purposes several years ago. Check lists of what nurses do and what a subsidiary worker can do are not valid estimates of the *worth* of either group.

The subsidiary worker can be checked off for "washed patient's face and hands," but it is *our* responsibility if, during that process, she failed to notice and report that the patient showed signs of approaching coma or toxic symptoms. Anyone can carry a tray to or from a patient, but the presentation of breakfast to the patient scheduled for a blood sugar test is a matter the head nurse must explain. If food is rejected, the head nurse is expected to know it, but only the intelligent observer who understands the necessity of making that report tells her about it. It all sounds so simple that the full import of all which has been involved in the performance of these simple-sounding tasks will only be realized when the staff nurse departs and someone less skilled takes her place; only when that happens will administrators and staffs realize the dependence they have put on the nurses' trained ability to make and report the observations which the doctor

made in former years. Before that happens, we should go on record as saying that subsidiary workers of this type are not capable of giving safe nursing care.

If this hope of help must be dismissed, what hope remains? Larger enrollments in our schools of nursing will help to some extent but not, from present indications, in sufficient quantity to fill the gap between the present use of nursing time and our resources. The volunteer services of the Red Cross nurses' aides is a large and growing help which is substantial because these women are well-bred, intelligent, and used to the care of a home and a family. Much more can safely be entrusted to them in the bedside care of the patient than to the subsidiary worker, but the kinds of nursing service and nursing care now demanded require a much longer period of instruction and observation than the group receives. Moreover, volunteer help comes in small periods from many workers, and these volunteers cannot be expected to carry the responsibility of the worker who is present for long intervals.

The immediate answer and possibly the solution to our difficulties may lie in our ability to point out the discrepancy between the time which nurses spend on the hospital wards and the time actually spent in giving the patients *nursing care*. We should save the hours spent by nurses in giving service which could be dispensed with or given by other groups of workers and use those hours for the administration of nursing care. We cannot do this, however, without the understanding and the cooperation of the patient and his relatives, the doctors, and the hospital administrators.

We have no desire to return to the iron-clad regulations which barely permitted visitors within the walls of the hospitals, but there is a happy medium which has

long ago been passed. The patients' friends and relatives now make serious inroad in our scanty supply of nursing hours through their constant presence with patients not seriously ill. Very few of these visitors would come to spend the day if they realized that not only their friends but other patients received less nursing care because of the time spent on the many visitors on the floor. Yet little is done to moderate the real abuse of the privilege.

The doctor, with almost no real inconvenience, could save hours of nursing time. He could remember hospital regulations and refrain from assuring the patients' relatives that they could "come in any time." He could limit the number of visitors who weary the patient and add so tremendously to the confusion and work on the floors. He could observe the meal hours and not choose them to make visits, do dressings and physical examinations, or see patients in the clinics while the meal waits and must be reheated. He could have some system about seeing surgical patients so that dressings once done need not be taken down again in order that he or the resident surgeon may see them. He could let the nursing office know in advance when he expects to show patients in the teaching clinics and not ask for a patient and a nurse five minutes *before* the class. He could dispense with the attendance of a nurse on many of his routine visits and still let the head nurse know when he has told a patient he could go home, sit up, or discontinue some treatment. Time is wasted when the nurses get the information from the patient and must then telephone the intern for definite instructions. General orders could be left at fairly regular intervals and not at any time convenient to the intern during the day so that the work-sheets must be corrected and medicine tickets made out two

or three times a day. Some of the many time-honored routines could be dropped—four-hourly temperatures for patients whose temperatures have not varied for a week, routine collection of specimens which are sometimes discarded because the laboratory staffs had no time to examine them, weights taken and recorded but never noticed, bedside notes for patients with conditions so unvaried that the nurses fill in the space with “comfortable day” and a résumé of all the medications already noted on the permanent record, and daily or four-hourly blood pressures for patients whose charts show an even line from one day to another.

Some hospital administrators have gone a long way in stopping this waste of nursing hours. In one hospital the staff was led to agree that apex pulse rates and routine blood pressures would be taken and recorded by an intern or medical student, and the abrupt decrease in the number needed would have been a severe shock to any less seasoned vessels than the head nurses. The same director put a minimum on bedside notes, on routine specimen collections, and on time spent by nurses accompanying doctors on rounds when their presence was not needed. He makes strenuous efforts to control visiting hours and insists that the ordinary discharge of patients to their homes be made before 1:00 P.M. and not at any odd times during the afternoon and evening. He has suggested and arranged with other hospitals and florists to have flowers delivered between certain hours, thus saving time and interruptions on the floors. Recovery rooms have been established for surgical patients, and this substitutes one nurse for every three or four needed when these patients were not segregated. Clerks are provided for nearly all floors and save hours by taking messages, meeting patients' visitors,

and carrying many details of clerical work and all charting not needed for experience by students or concerned with drugs or treatments.

There are so many things that can be done before we turn patients from our doors or give their care into the hands of untrained people: the proper placement and sufficient supply of annunciators and telephones in the kitchens and utility rooms; laundry trucks on which linen is placed in the laundry and not handled again until used; lights outside the patients' rooms signifying the presence of a nurse within; convenient placement and sufficient space in utility rooms, even if such installation does mean loss of bed space; wheeled tables for carrying equipment; lavatories in all small units, dispensing with the necessity of carrying bath water; units where patients can be admitted and discharged and the floors spared that extra confusion.

Nursing service should be confined to nursing and not used as adjuncts to other departments, but even the cleverest and best of hospital directors is prone to use it in this way. He does it for two reasons; first, because the nursing service is present twenty-four hours of every day (our fatal asset), and second, because from long tradition he protects the hospital departments which have always seemed important to him. He does not deliberately or even consciously discriminate against the nursing service when he listens to the grief of the head of some department and dries the tears by diverting a little of the work of that department to the nursing service; he is merely following a long-established method which has worked almost without a hitch since 1873. He still is prone to act on the assumption that nursing hours are less expensive than supplies. He cannot believe that it would be just as economical

to put money into supplies for the use of nurses, even if they used a little more than was necessary, than have a nursing service waste hours and energy making extra trips to get those supplies when urgently needed. He does this because the nursing service directors may never have shown him that his plan works because the nurses simply walk a little faster or stay on the wards a little longer for the same salary. For instance, probably most hospitals need about four times as much linen in circulation as they possess. I contend that no one item causes more annoyance, inconvenience, and waste of time to the nursing service than does this one.

In defense of the hospital administrators, I must state that they would undoubtedly do much more to help the nursing service directors if we had the ability—or took the time—to present our difficulties and describe the complications with which we contend. In all probability many of our troubles would be removed if the hospital administrators knew the real situation. But we nursing service directors have been too prone to accept the *status quo* and have made too few observations of actual conditions on our floors. If we were asked what suggestions we had for alteration in building and planning which would save nursing hours, would we all have the answers? Sometimes I think that what we need most is some efficiency experts to point out to us the obstacles to efficiency which long association has hidden from us.

The work pattern on our wards was established many years ago, not because nursing procedures must be done at certain hours, but principally to fit them around the routines of the dietitians, the staff doctors, the record room, the pharmacy, the stores, and admitting offices. The plan was undoubtedly good economy in 1918 when nursing service cost less in

proportion to work done than any other service, but it may not be good economy now. Very little experimentation has been done on changing work plans because such experiments would inconvenience so many other departments, but changes may be necessary. Certainly more thought could be given to the idea. Is seven o'clock the best hour to start the day? Must all baths be given before noon? Need the hours for four-hourly medications be so spaced that the early morning dose is due before the refilled bottle has been returned from the pharmacy? Or could the pharmacy rearrange its schedule and fill these bottles at night? Must the noon meal and the staff visits coincide? The "peak loads" which necessitate broken time for the nursing staff may not be necessary, and if the work load could be levelled, less staff might be needed. The aim of adjustment is a laudable one, but, if carried to excess in one department, that department's budget shows the strain.

It has been rather generally contended that meals should be served by nurses because food is part of medical treatment. Nurses have been loath to relinquish the service because we have feared that student nurses would tend to minimize the importance of food if they were not responsible for giving it to the patient. But some large and excellent schools have proved that the difficulty could be overcome. Work which has taken several hours a day has been given to the dietitian and the teaching of students adjusted to this plan.

The greater the number of departments involved, the heavier the responsibilities of the head nurse, but an enlargement of the groups concerned with the care of patients seems inevitable. Some experiments of this sort are most interesting. The Yale University plan of using pre-

medical students is especially so. We can go further in this line: If the patients on our floors for observation and research could be segregated, a considerable number of the necessary tests could be done by technicians. Under this arrangement very few nurses would be needed to staff the floor for these patients need so little nursing care.

The statement that time consumed in nursing procedures could be reduced by 40 to 75 per cent should not be dismissed without investigation concerning its authenticity. If the writer of the article which I quoted can prove that so much time is wasted in unnecessary or useless techniques, this charge is a serious one; if it is true even in a small degree, we nurses should make that discovery and provide the correction. A period of crisis may not seem the appropriate moment to do research in time saved or wasted in nursing procedures, but perhaps that project is necessary for the maintenance of adequate nursing care. Time-honored customs cannot be followed now unless justified by economy of time and effort. The forms and reports sent from the floors to the nursing office and other departments should come under the same scrutiny. Can any of these be abolished, condensed, amalgamated or simplified? Does each one serve a real and separate need? For my own part, I have been amazed at the speed with which these forms can multiply themselves and how easy it is to blind oneself to repetition of information and duplication of effort.

There are still many nurses who are engaged in private duty. This fact has inevitably evoked comment in this crisis, and the question of whether or not a portion of the group could not be called to join the nursing services of the hospitals for the duration of the war. This very

controversial subject cannot be evaded in this discussion. We will all agree, I think, that luxury nursing must cease; but I wonder if we would agree that any wholesale decrease in the amount of "specialing" on our floors would be of real advantage. I do not see how we can advocate urging the private duty sections to join the hospital services as a patriotic duty unless the staff nurses in our hospitals receive remuneration in proportion to the work they do and the responsibility they carry. In other words, it seems fairer to make staff work a career in which women can live normally and make provision for old age than to force women, established in another field, to accept salaries and living conditions which they do not want. It is likely that a large percentage of the private duty section would accept staff work if conditions were more acceptable.

We may as well all face the fact that neither the quantity nor the quality of nursing service can be maintained at present *costs*. Money must be spent in alterations which will save time and steps, and salaries must be raised. The general staff nurse has longer hours, more unhappy living conditions, and lower salaries than are compatible with the services which we expect and, in the main, obtain from her. There is little we can do to mitigate the fact that patients are sick from five o'clock in the evening to nine o'clock in the morning, and on Sundays and holidays; but we should make the remuneration for her work more in keeping with our demands on the worker. Unless we do this, our efforts to enroll more students are not likely to be markedly successful. It is a pungent comment on this question when young applicants to the school say, "Of course I don't want to be just a general staff nurse!" It would be unwise to answer that the staff nurse is an important

and essential person in the hospital, for an inquiry about salaries and living conditions would very sensibly follow. But the answer is correct; the staff nurse *is* important and essential. An immeasurable amount of the achievement and the reputation of the hospital rests upon her ability and her morale. Nurses form perhaps the one group of workers who accept difficult situations without vigorous protest, but we must acknowledge that staff nurses on the whole have justifiable cause to be dissatisfied with their lot. The director of a good school of nursing told me recently that one of her most promising students had left the school, giving as her reason the discontent and discouragement she heard so frequently expressed by the staff nurses. Probably all students hear some of this, and the condition cannot help but have a detrimental effect on the morale of the future staff worker.

It seems to me that a survey of the situation confronting us leads to a few simple but ineluctable conclusions:

1. Subsidiary workers on *different levels* and volunteers may help in great measure to give nursing service, but there is no substitute for the well-trained nurse in the administration of nursing care
2. The maintenance of nursing care may be achieved by
 - a. Using for nursing care many of the hours now spent in activities classed as nursing service

- b. Eliminating the physical and the administrative factors which waste nurses' time and energy
- c. Fixing living conditions and salaries for nurses on a level which will keep nurses in the hospitals.

Some hospitals may have accomplished all this; some hospitals may have tried other and better plans. We could all accomplish much more if we pooled our individual findings. I should like to suggest that a committee be set up for that purpose and the results made available.

I was asked to discuss the maintenance of nursing service and I have tried to show that nursing service and nursing care are not identical. I hope I have made evident my conviction that nursing *care* is the essential which *must* be maintained. I close by reiterating that the quality of nursing care depends on the quality of nursing education and on the careful selection of students admitted to the study of nursing. Perhaps the second criterion is the more important one for it is painfully evident that a professional education given to those who lack the social and temperamental attributes basal to the pursuance of an altruistic profession is no more successful than putting good veneer over poor unseasoned wood. Finally and fundamentally the quality of nursing care depends on the quality of those giving care.

8. Increasing and Using Nursing Auxiliaries, by *Lucile Petry**

THE relation of the supply of nurses to the demand for nursing service repeats a pattern grown painfully familiar in our national economy. The striking increase in hospitalization, which would have continued had there been no war, is even more marked and promises to be accelerated because of the war and the conse-

quent industrial expansion and the development of target areas. More nursing and hospital service will be demanded. Increases in the Army bring marked increases in demands for nursing service, which must be met without fail. To meet the known needs, three of five of those

* Adapted from *Hospitals* 17:37-40, Feb. 1943.

now eligible must join the armed forces. Increased acuteness of health problems in this time when there are major shifts in population produce an even greater demand in the field of public health nursing.

Where are the nurses who will meet this demand? We hear less today from the optimist who claims that there are enough nurses and that the problem will be solved by effective distribution of those nurses we now have. We are beginning to suspect that there may not be enough woman power to meet the new industrial needs as well as to fill the continually growing needs in the existing fields for women. We hear, for example, that the maximum percentage of women workers in the airplane industry is 25 per cent in this country, whereas in England it is 65 per cent. We hear that we must raise that percentage in this country, perhaps double it, in the next year. So it is scarcely a simple problem of "Are there enough nurses?" but a major problem of "Are there enough women?" We now know that the hospital administrator who says he has no difficulty in procuring nurses, or who says that the school in his hospital has plenty of candidates, is an isolated case. We cannot believe that his particularly effective methods of procuring graduates in his service and students in his school will work for all hospitals and schools, because we know that there are insufficient nurses and insufficient candidates for nursing schools. It appears imperative then that we find out how many nurses we need and predict the expansions in that field, and that we estimate what proportion of the woman power of the country must be used, or should we say assigned, to that need.

Until the time when we have the facts about these needs and the possibilities of

meeting them, and until we design measures for guaranteeing that nursing service will receive a just proportion of the woman power of the country, we must do our utmost to guarantee most effective use of the nursing service at hand. Nursing service at present can come from three sources: from graduate nurses, from student nurses, and from auxiliary nurses. Measures have already been taken to increase the number of graduate nurses by increasing the number of students in schools of nursing. Campaigns to induce inactive graduate nurses to return to active service have been, and are being, carried forward, and in some communities with considerable success. Federal subsidies are being used to retrain these nurses and to increase the enrollment of students in schools of nursing. With all our attempts to increase the supply of nursing service rendered by graduates and students, we know we shall not produce enough. I had a letter last night from my office in Washington where we have records of 250 schools of nursing. The tabulation of figures had proceeded through 92 of these and showed the following: These 92 hospitals had lost 18 per cent of their graduate staff to military service (or 899). All but 281 of these had been replaced. One out of every two of these institutions had lost a nursing instructor to the military.

We know also that a part of the service now given by graduates and students could be given by personnel with less costly training. Ninety-two schools referred to above had increased non-nursing personnel from 3,400 to 4,400 in the last year. We realize that this precious supply of available nursing service must not now be used for the performance of non-nursing activities, and even in some instances elementary nursing activities, but must be hoarded for use in situations which de-

mand expert technical service. In many other technical fields we hear of dilution through the use of less well-trained workers and we also hear of the fear that the service will suffer because of dilution. We believe, however, that in nursing considerable dilution can be permitted before we reach the point of allowing the quality of service to suffer. We know that patients can receive adequate care when that care is designed and supervised and its highly technical portions carried out by professional nurses and its less technical portions, oftentimes the bulk of the care, carried out by the auxiliary nursing personnel.

The problem then becomes that of "What part of nursing service can be contributed by auxiliary personnel?" How can this personnel be trained? These problems are found in a setting which contains these other problems: How many of these auxiliary workers are now in existence and being used? Are there ranks of women from which additions to this group can be recruited for training and service? If additional numbers are trained, can the hospitals establish employment policies which will make best use of this group?

It has been hoped that, in order to avoid the difficulties encountered in state licensing laws, a voluntary agency undertake the determination of the number of these workers now available in the country; and that an agency undertake to locate and enroll these workers. This hope is in line with the general pattern of much progress which has been made in this country with similar problems. Voluntary agencies first carry out experimental plans, and, when their effectiveness has been approved, official agencies with public support continue the operation of the plan in whole or in part. If, for example, the large group of auxiliary nurse personnel now in existence could be counted and enrolled by

an agency such as the Red Cross and the usability of this group tested and approved by hospitals, then a government agency might undertake subsidized training of such a group. Whether government subsidy would be required to guarantee the effective use of these groups by hospitals is a matter for hospital administrators to determine.

If we can assume that it has already been proved that auxiliary nurses can be recruited and trained, and then can be used by hospitals, a plan for their training could be prepared. An agency such as the United States Public Health Service might assume responsibility for administering a federal subsidy to a large nationwide training program. The next few paragraphs are hypothetical and describe one example of what might be done. In such a case, a curriculum of six months might be suggested, three months of centralized theoretical instruction and three months of supervised clinical practice. Such a six-month curriculum might be operated both by schools established for this purpose especially and by already existing nursing schools which would undertake this additional function. Schools operated for this purpose solely might include the best of the schools for auxiliary personnel now in existence and new programs in which the first three months of theoretical instruction might be centralized for several schools in one city; and the second three months, supervised clinical practice, might be carried on in several cooperating hospitals. Among these might be small hospitals now conducting schools of nursing which would prefer to discontinue their existing school and to substitute the less expensive type of training required by the auxiliary group. This would apply particularly to hospitals of less than fifty beds whose graduates are ineligible for

military service because of the inadequacy of their clinical preparation.

Another group of institutions which might undertake this kind of training is the large school of nursing which at present admits not more than one or two classes of student nurses a year and which, therefore, would have classroom facilities available between the admission dates of its regular nursing classes. It would seem important that a plan for training auxiliary personnel should be as inexpensive as possible, and this suggestion to use nursing classrooms in hospitals which would switch to the training of auxiliary personnel and in other hospitals which now have nursing classrooms unused for certain periods of the year, meets this criterion. The use of nursing classroom equipment which is not now used in late afternoons and evenings also offers another opportunity to train auxiliary personnel without adding to equipment costs for classrooms.

One might suggest tentatively that the first three months of a curriculum for auxiliary personnel be taught by a nurse and a home economist, since nutrition and housekeeping figure predominantly in the auxiliaries' activities; and that the second three months, composed largely of supervised clinical practice, be the responsibility of a supervising nurse. We might see the first three months, which contain the sciences directly applied to elementary nursing, taught to a group of 40 to 120 students at one time. These students then would be apportioned in groups of 20 or more to various hospitals for the second three months. It would appear that one graduate nurse could supervise each group of 20 students during this period of practice. The number of instructors, that is, nurses and home economists, re-

quired for the first three months would depend on the number of students to be enrolled in the school. Demonstrations of nursing which could be given to large groups could be included in the first three months, as well as small amounts of supervised classroom practice of the nursing so demonstrated. In the second three months these students would practice in actual hospital situations with real patients, and would learn to carry out generalized nursing which does not require highly complicated equipment or the interpretation of scientific observation of patients. A graduate nurse, or perhaps a student nurse near the end of her training, would assume these functions for the patients who are otherwise cared for by the trainees in the auxiliary group. Upon completion of the six-month curriculum, these workers should be ready for employment by hospitals. They would, of course, require nursing supervision and the presence of graduate or advanced student nurses to carry out these portions of nursing care which they were not qualified to do.

Trainees for this program could be recruited from women from eighteen to fifty years of age who had two years or more of high school or its equivalent. If a federal subsidy were available for this program, it should not be an expensive one for hospitals. The federal subsidy might include the cost of instruction for the six months and the cost of subsistence for trainees during the first three months of the program. Since the trainees would be providing valuable nursing service during the second three months of their program, subsistence should be provided by hospitals. The training program should also be inexpensive for the trainees themselves. The sum of \$150 for subsistence for trainees for three months, and a salary of

\$2,000 to \$2,400 for instructors, would bring the cost of the program of training for 6,000 students to approximately one and one-half million dollars. If groups accommodated in the second three months of the program averaged 20 trainees, approximately 300 such groups would pass through this period in the year covered by the subsidy. The number of hospitals involved in giving the three months' clinical experience would depend upon the number of times a hospital operated the program that year and the number of groups in one hospital at any one time. If each hospital furnished this experience to only one group during the year, 300 hospitals would be involved.

It is interesting to note that approximately 200 hospitals, whose graduates are ineligible for military service, are at present operating schools of nursing. If at least half of these schools were converted to the operation of the auxiliary training program, and if the hospitals with less than 100 patients, who are at present considering the idea of opening a school of nursing, formed centralized schools of the type suggested above, and if a number of schools of nursing, whose classroom facilities are now unused for certain portions of the year, also join in such a program, we should have little difficulty in finding clinical fields for these trainees.

Upon the completion of the training, the auxiliary nurse would have to be assured employment with a wage sufficient to prevent her immediate deflection to industry. With the assurance that she has learned a vocation, which will surely be useful after the war, a salary comparable to that paid to a stenographer would perhaps be sufficient to hold her.

Some of the problems which would be encountered by a hospital school of nursing

desiring to convert itself into a school for auxiliaries include the following:

Would the alumnae members of the existing school object to the conversion?

Where would nursing instructors be found?

How could housing be provided for the second three-month period?

In these times, nurses who have been graduated from schools which leave them ineligible for military service realize more acutely than before the predicament of the nurses who come from a small school of nursing. We believe that the opposition of alumnae associations would be at a minimum and could be obviated when the reasons for the conversion were persuasively presented. State and national recruitment committees for schools of nursing and agencies concerned with the procurement of nurses to meet the present needs are encountering larger numbers of nurses than ever before who realize the ineffectiveness of the experience they received as students in hospitals of less than fifty beds.

The problem of procuring instructors for these schools will be a more difficult one. In case of the conversion of a small school already in existence, it is hoped that the instructor in that school would be willing to continue as the instructor in the auxiliary training program if the great value of this program were presented to her appealingly. Highly qualified instructors in the discontinued schools would probably attempt to find positions in larger schools of nursing where many vacancies at present exist. A certain portion of the federal subsidy for the auxiliary training program might be used to conduct short courses designed to help instructors adapt

themselves to this type of function. In-service educational programs for this purpose might be the best type of assistance for these instructors.

In instances where a nurses' residence would become vacant when the school of nursing was discontinued, housing of the auxiliary trainees would not present a problem. It is hoped that in instances where this is not the case the hospitals would be able to rent quarters in which to house auxiliary trainees. It is also hoped that the housing of the auxiliary worker upon the completion of the course could be procured by the worker herself rather than being provided by the hospital. The use of the late afternoon and evening hours for the training program, which would seem advisable from the point of view of teaching equipment, would have an additional advantage in that women enrolling in the program might be able thus to make gradual transition from their old activities, even homemaking, to their new job.

We look forward after the war to a con-

tinuing demand for expert nursing service, in both hospitals and public health agencies, and to the demand for American nurses for rehabilitation activities both in this country and in the other war torn countries of the world. The possibility that the training of auxiliary workers would become a permanent practice is therefore not a frightening one. Care of patients in hospital and home after the war might continue to be given by the combination of auxiliary worker for elementary care and professional worker for supervision of that care and for the more highly technical aspects of it. We know also that we may anticipate an enormous increase in the demand for the care of the aged and chronically ill, a function which could well be performed by the worker trained in this auxiliary program. We could expect such a design for nursing service would probably be more economical for patient, hospital, and community than our present system in which the predominant amount of nursing service is given by the highly trained nurse.

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CHAPTER X. OPERATING ROOM

1. A Twin Attack on Operating Room Hazards, by *Warren P. Morrill, M.D.**

WIDESPREAD planning for postwar hospital construction, particularly in smaller communities, emphasizes the need for an evaluation of the experiences, advances, and errors of the more recent past. Communities without extended experience in hospital planning and operation are prone to think of the proposed hospital simply as providing housing for sick people.

But that is only a very primitive conception of the proper function of the hospital. It can and should be a highly specialized and functionally designed tool for the welfare of the entire community. If this ideal is to be realized the hospital sponsors must take advantage of the experience of the past and embody in their plant the latest and soundest principles of functional design.

One of the items which has been the subject of much discussion, of much scientific investigation and widely varying opinions, is the surgical operating room, particularly in relation to its safety from the hazards of (a) anesthesia explosions and (b) postoperative infection.

As in all progressive developments, many new ideas have been advanced, accepted with enthusiasm by their originators, with reserve by others, and finally after trial have received limited or modified acceptance by the hospital field as a whole. It is the administrator who must live with these problems day in and day out and it is therefore from the administrator's standpoint that they will be discussed.

The old idea of the operating room as

an arena for a surgical pageant is definitely past. The patient is the most important user of the operating room and his welfare and safety must dominate its planning.

It is now definitely accepted that the source of a very large proportion of postoperative wound infections is the respiratory passages of the occupants of the room, particularly the surgeon and his "table" assistants who are in most intimate contact with the patient.

The control of these sources of infection is a matter of surgical technique, the extended discussion of which is foreign to the purpose of this paper. But it has been shown that the rate of operating room infections varies directly with the number of persons in the room. The logical conclusion from this fact is that the room should be no larger than is necessary for the convenience of the operating crew and proper disposition of equipment.

Modern practice indicates that this involves a floor area of not more than 225 square feet in most instances and of 250 square feet as a maximum.

If it is necessary to provide for observers, as in a teaching clinic, the accepted practice is to make such provision in the form of a glassed-in gallery with entrance from the corridor and with no air connection with the operating room. A refinement is to slant the glass at the front of the gallery at such an angle as to be at right angles with the line of vision from the observer to the operating table. Another is to pro-

* Adapted from *Hospitals* 17:27-30, June 1943.

vide loud speaker equipment from the operator's position to the gallery.

An explosion depends upon the presence of air (oxygen), an explosive substance, and a source of ignition. Present-day developments in inhalation anesthetics have been characterized by the introduction of new agents, each seemingly more explosive than its predecessor. Since each of these agents has characteristics of definite value to the patient, it is not justifiable to deny full choice to any patient so long as the hazards of explosion can be reduced to a point which will assure him greater safety than he would enjoy if given some less suitable anesthetic.

The prevention of explosions is more a matter of the training, techniques, and unremitting vigilance of the anesthetist than of the physical characteristics of the room, but this fact must never excuse a failure to build into the room and its equipment every practicable safeguard.

There are two principal zones in which an explosive concentration of the anesthetic agent may exist. The first is the narrow zone about the patient's face and any part of the apparatus from which a leak might occur. This danger zone is unavoidable except to the extent to which meticulous care of the apparatus and all its accessories can prevent leaks. It is not believed to extend more than one foot from the point of escape of the gas.

The other zone is due to the accumulation of the anesthetic agent that may have been exhaled by the patient, or leaked from the mask or from some part of the apparatus. Ether and cyclopropane are heavier than air and ethylene so little lighter (0.97) that these accumulations will normally occur at or below the level of the operating table.

There is always some possibility that a part of any such accumulation may be

carried elsewhere by such air currents as may exist in the room. Prevention of this occurrence is obviously to arrange the ventilation of the room so that such accumulations are avoided. If the ventilating air entering the room is admitted at or near the ceiling and it is removed at or near the floor, it is obvious that there will be a continuous movement of the air toward the exhaust and a minimal possibility of the accumulation of any explosive concentration of the anesthetic agents.

Since the anesthetic apparatus, tanks, etc., are usually placed on the right side of the head end of the operating table, it follows that the optimum location of the exhaust vent will be at floor level on the right hand wall and near the corridor wall. This would give the effect of a positive current from above the operating table and anesthetic apparatus across the zone of probable highest concentration of the gases to the exhaust grille.

The other element involved in the causation of an anesthetic explosion is a source of ignition. Study of a large series of such explosions indicates that static electricity is the most common source of ignition, something in the order of 80 per cent of explosions being attributed to this source.

Static electricity is generated wherever there is friction but in amounts probably too small to cause an ignition spark at the moment of generation and prone to drain away if there is available a freely conductive path to the ground. It is only when this trickle is dammed up by some break or nonconductor in the path to the ground that a pool of sufficient volume to cause an igniting spark can accumulate.

When static electricity was first recognized as a major factor in the causation of anesthetic explosions the first efforts at control were to ground the apparatus in the room by the use of a chain connect-

ing it to a convenient water pipe or other ground connection. This was soon succeeded by the use of metal strips laid in the floor, these strips connected to a ground and connection between the apparatus and the strips established by the use of drag chains connected to each piece of apparatus.

Then, guided by the experience of dry cleaning and similar establishments using volatile combustibles, the maintenance of a high humidity (55 per cent to 65 per cent) in the air was hailed as the answer to the question. This was based on the theory that with this degree of humidity the moist film on the surface of all objects in the room would establish a path sufficiently conductive to permit the static electricity to trickle away as fast as it was generated. Some doubt has now been thrown on the efficacy of this method as applied to operating rooms supplied with filtered air.

Investigation of one disastrous explosion revealed that dangerous accumulations of static could accumulate even in the presence of a relative humidity of 65 per cent. The outbreak of the war has prevented full examination of the reason for this, but one explanation advanced is that the electrical conductivity of water is not due to the water itself but to electro-conductive impurities contained in the water, particularly CO_2 . When the incoming air is passed through a water curtain filter, the water absorbs so much of the contained CO_2 as to reduce the conductivity of the moisture film from the humid air to such a point that it is no longer adequately conductive.

If this theory is sound, the condition could of course be corrected either by using some type of filter which would not remove the CO_2 or by returning the CO_2 to a safe level by artificial means.

The next and most recent development is to construct the entire floor surface of a conductive material and to provide all apparatus and personnel with a conductive contact with the floor. As applied to apparatus this requires conductive tires or shoes and for personnel conductive soled shoes, or some application of the drag chain method.

In one of the earliest cases this objective was attained by the use of a floor covering of sheet steel on an area sufficiently large that no person or apparatus could get to the table without first coming in contact with the sheet metal. The next step was the development of a rubber flooring material sufficiently conductive to permit the free flow of static electricity. A more recent development is a plastic floor material containing metallic oxychlorides.

The complete development of these methods has been interrupted by the war, but all of them are in use in explosives plants in which conditions simulate those of the operating room, and it is hoped that the experience of these plants will point the way to the solution of the problem in operating rooms.

Since the outbreak of the war and the consequent limitations on the above materials, one hospital has installed sheet lead on the floors of operating and delivery rooms. This material provides a comfortable non-slip working surface and adequate conductive properties, and after one year's use has not shown wear or other objectionable properties except that of the natural lead color. Incidentally it should be noted that if at any time it becomes desirable to replace the lead with other material or with new lead, the salvage value of the lead is very high.

The developments in air conditioning during the last ten years have outmoded the older conventional radiator convection

heating, and the heating, ventilating, and air conditioning tend now to be combined into a single system with the heating accomplished by the introduction of new filtered heated air rather than by reheating the room air.

There have been some differences of opinion as to whether the incoming air should be introduced at the higher levels of the room and the old room air removed from below or vice versa. The large predominance of opinion now favors introduction of the air at or near the ceiling and its removal from points as near floor level as practicable. The major reason for this is that it is the more effective way of preventing air currents in the room and the consequent circulation of infective materials.

A recent and very promising method for the introduction of air is the so-called multivalent system. In this system the air is introduced through a large number of small apertures of a perforated ceiling panel, much resembling the ordinary perforated acoustical treatment material. The air is either pre-heated or heated by coils in a plenum chamber behind these panels. The advantage of the system is that the velocity with which the air enters the room is entirely lost within the first two inches after emergence from the apertures and the warmed—and conditioned if desired—air fills the room by downward displacement in a slowly descending blanket quite comparable to the manner in which water introduced at the bottom would fill the room from below upward.

The principal advantages of this method are its entire absence of any detectable air currents or turbulence and the minimizing of the circulation of infective materials or explosive gases which may be in the room.

Such studies as have been made on the

effect of air conditioning of the operating room or recovery room have not demonstrated that it contributes in any direct way to the welfare of the patient, except to the extent to which he benefits by decreased fatigue of the surgeon and his assistants.

It is pretty well established that a very large proportion of operating room infections are by bacteria from the respiratory passages of the occupants of the room. Masking of all these occupants materially reduces the hazards from these sources. Masks, however, have the inherent weakness that, if of the filtration type, they cannot be made more than 95 per cent efficient without too much interference with the breathing of the wearer. If they are of the solid deflective type, they do not remove the bacteria at all but simply deflect them back along the sides of the wearer's head, there to act as a source of contamination of the room air as a whole.

Likewise, it has been shown that the rate of postoperative infections varies directly with the number of persons in the operating room. It follows that strict limitation of the number of people in the room to the minimum necessary to the actual operative crew will further reduce the potential sources of infection.

The recognition of the impossibility of preventing at least some of the bacteria from reaching the wound and demonstration of the great bactericidal effect of a certain somewhat limited band of wave lengths of ultraviolet rays have led to efforts to control infections by irradiation of the wound area with these wave lengths.

Clinical reports on this procedure have as yet come from but a limited number of observers, but in their experience the results have been very good. Another group of investigators using laboratory methods

have determined that exposure to ultraviolet rays having an intensity of 13 "clicks" per minute reduced the bacteria in air from 535 colonies to 3 colonies per minute of exposure of plates and that the upper safe limit of direct exposure of a wound to ultraviolet rays of this intensity is one hour.

The question of the effect of the rays on the wound is of secondary importance, however, as the usual arrangement is to place the lamps so that they will act upon the air in the immediate vicinity of the wound rather than directly on the wound itself.

But not all of the air-borne infections occurring during the course of the operation can be charged to the passage of bacteria directly from the operating personnel to the wound. One investigator believes that the "greatest contamination of air occurs during preparation when many people are hurrying about the operating room." Based on this belief, he recommends that any air sterilization procedure in use should be put in operation sufficiently in advance of the operation to ensure that it should at least start in a relatively contamination-free atmosphere.

The problem of infective agents released at some distance finding their way to the wound may be a minor one but the welfare of the patient demands that no possible source of infection should be neglected. While bacteria may tend to sink toward floor level, it still has been demonstrated that many may float or be carried rather freely in the air.

This is particularly true when there are air currents or areas of turbulence in the air. The control of these floating bacteria then resolves itself into the minimizing of air currents or provision for sterilization of the air.

The introduction of air at a compara-

tively high velocity, as is common with the use of the conventional ventilating inlet grille, whether placed high or low in the room, or the use of the conventional convection radiators for heating, cannot fail to produce definite but usually unpredictable currents. The use of some form of air introduction such as the multivent system noted above that will result in a displacement type rather than a velocity type of air movement will minimize the occurrence of air currents, turbulences, eddies, etc. If in addition both inlet and exhaust openings are so placed as to promote a definite downward movement of the air, this should tend to further reduce the number of bacteria which reach the wound area.

Neither air currents nor the presence of bacteria in the air is immediately or directly detectible. For this reason, proposals to sterilize the room air during the course of the operation have been made. The methods proposed have been first by the use of ultraviolet ray and second by chemical means, more specifically the introduction of propylene glycol.

The earlier application of the ultraviolet ray was by installation in the inlet ducts. This had the weakness that the air passed through the duct so rapidly as to give a very short exposure time and therefore required a very expensive and elaborate installation to be effective. At its best, it likewise ensured only that the entering air should be sterile but had no effect other than dilution on the air already in the room.

The demonstration of the effectiveness of vertical ultraviolet barriers in minimizing the horizontal transmission of infection suggests that a horizontal barrier just above head level, combined with a ventilating system which ensures a low-velocity downward air movement and a minimum

of air currents, may go far toward the control of infections from the air of the room, other than those transmitted directly from the personnel to the operative area.

The chemical method of air sterilization has the advantage that the incoming air is not only sterile or at least free of pathogenic organisms, but that it may also remain actively antiseptic, and thus protect against bacteria introduced into the room during the course of the operation.

Because of the low toxicity and high bactericidal value and other physical characteristics of propylene glycol, the injection of this agent into the incoming air has been advocated. Experimental evidence in favor of this method is very promising. Propylene glycol is invisible, odorless, and given by mouth or intravenously is essentially nontoxic. Introduced at the rate of one part to two to four million parts, it produced immediate and complete sterilization of air containing streptococcus, pneumococcus, and virus of influenza. In animal experiments 1:2 million to 1:5 million parts gave mice complete protection against streptococcus while all control animals died.

Clinically it has been found to give a large measure of protection against the spread of respiratory infections in children's wards. Much clinical investigation

remains to be done but to date the results of its use are very promising.

More recently triethylene glycol has been the subject of intensive study as an air disinfectant and the preliminary reports are very promising. There is as yet no published data on its comparison with propylene glycol but their characteristics seem to be quite comparable.

As an air disinfectant it has the advantages not only that it effects an initial sterilization of the air, but the disinfectant action persists throughout the air of the room.

The problems of the prevention of anesthetic explosions and the control of post-operative infections are so interrelated that they must be approached not as separate problems but as separate parts of a single problem, the air of the operating room. The solution then cannot come from a single branch of science but from a carefully and fully integrated attack by all concerned.

It is probable that there is already sufficient information concerning these problems to permit the design of an operating room as free from hazards as is humanly possible. It remains for the administrator and his architect to weigh the different proposals and to integrate them into a workable combination.

2. Savings Result from Good Surgical Technique, by *Howard E. Bishop**

AT THE end of the nineteenth century, Lister showed that wound healing could be hastened by the use of antiseptics to destroy bacteria. His technique, which consisted of spraying carbolic solution profusely about the operating room, even drenching both surgeon and patient, has long since been discontinued, but his discovery that suppuration was dangerous has led to improved antiseptics, and to our

modern surgical technique of asepsis. In consequence, infection, which was rampant before the days of Lister, has become less and less a factor, not only in the mortality in our modern hospital, but also in the length of stay of most of our patients. Our surgeons have, therefore, been enabled to undertake major operations without the old fear of morbidity and mortality.

* Adapted from *Hospitals* 16:73-76, June 1942.

It has been, comparatively, a short time since the present methods of surgical technique to prevent infection were adopted; in fact, much of this technique has been a development of experience even after we learned the necessity for antiseptic procedures. A knowledge of present-day surgical technique is sufficient to warrant the best of results with a minimum of infections provided the surgeons and the operating room team are consistently on the alert for possible or actual breaks in technique.

The public knows too little of the splendid work which our hospitals and the medical profession, working together, have done in lessening the danger of infection. The average stay of our patients has been shortened more because of fewer postoperative infections than from any other one contributing factor. Some other reasons for the appreciably shorter stay may be credited to improved surgical techniques such as the use of finer sutures, nonabsorbable sutures, and other proven advances.

In these days of economy, which should be exercised by all of us in every possible way, the prevention of infection in our operating rooms, as well as a reduction in the number of postoperative infections to an absolute minimum, is of paramount importance. Absence of infection relieves the patient of inconvenience and pain and results in savings that can be readily determined in dollars and cents. For the patient who is able to pay his way it means a reduction of several days' cost for hospitalization, and to the hospital caring for a charity patient the reduced length of stay is a very worth while saving.

The average stay per patient in our hospitals in the United States has been appreciably reduced over a period of years, but owing to the fact that this average includes all types of cases a fair comparison is difficult to obtain. Were it possible to

secure a comparison of the average stay of all appendix cases, for instance, a startling reduction in the period of hospitalization would be indicated over the past few years. The shorter stay means that the hospital cost to each patient is little or no greater than it was perhaps ten years ago, even though the cost per day is more. The greater cost per day is fully explained and justified by the definitely higher level of our present-day requirements for proper and satisfactory scientific examination, diagnosis, and treatment.

In referring to postoperative infections, Dr. Harold L. Foss says:

"Most postoperative wound complications result from actual 'breaks' in surgical technique, the types and varieties of which are legion. Some of the more common are insufficient sterilization of instruments, gloves and gowns; insufficient preparation of the hands of surgeons and nurses; carelessness on the part of surgeons or nurses in the handling, prior to coming to the operating room, of infected material—all too frequently infection is transmitted as the result of unintentional carelessness in matters of personal hygiene. Sporadic occurrences of wound complications resulting from infection with the haemolytic streptococcus are frequently traceable to certain members of the operating room personnel who are carriers and who constantly harbor the organisms in their upper air passages. A careful masking of the mouth and nose of each person in the operating room will eliminate this source of infection."

Infections can definitely be lessened by strict attention to all of the details associated with the preparation of the patient, the preparation of the surgeon and his assistants, and careful maintenance of sterile operating room equipment and supplies. A further important consideration is the

postoperative care of the wound and the role it plays in preventing prolonged hospital stay. All these factors are in addition to recent developments, including drainage, pressure dressings, and chemotherapy. There are many sources of postoperative infection, but prevention from the sources mentioned and from other sources is a most important matter and we administrators should bend every effort to assist to the end that such infections will be reduced to an absolute minimum.

It is not within the province of this discussion to suggest any special surgical procedures, as these should be determined by the staff of each hospital. It is well, however, for us to check the procedures in use in our own hospitals and, in order to emphasize some of them, the following are mentioned:

1. *The skin of the patient.* Proper preparation of the site of operation is a most important factor if infection is to be avoided. The technique varies considerably with the point of view of the operating surgeon. Orthopedic men as a rule have an elaborate procedure starting forty-eight hours before operation, whereas the more common procedure is to prepare the patient immediately before operation. The danger of infection from the skin is mainly due to the fact that it has been found practically impossible, because of the contamination of the hair follicles, to follow out any technique which will guarantee a sterile field.

2. *The skin of the hands and forearms of the surgeon and of his surgical assistants.* Surgeons differ as to the method and time of scrubbing the hands and forearms, but if one of several approved plans is adopted this danger may be removed as a cause of infection. Meticulous care of gloves will result in fewer infections. Any suspicion of an injury to a glove is reason

to change immediately. Minute punctures sometimes escape detection even by the inspection of a most careful operating room supervisor.

3. *The mouth and throat of the operating room personnel.* Another question among surgeons is that of the mask which is universally used today. Doctor Hertzler goes so far as to question somewhat the use of masks, as many masks used are little or no protection. Almost all surgeons, of course, insist on the use of an adequate mask, to assist in the prevention of air-borne infections.

The variation in masks is great and perhaps some that we are using are not adequate. Dr. J. Staige Davis says: "In the majority of hospitals, the masks are much too small and are therefore uncomfortable; they are too thin to be effective, and in addition are often worn improperly." All persons in the operating room, including all visitors as well as personnel, should wear sterile caps and gowns and have their mouths and noses properly covered with masks. Safe practice will exclude from the operating room not only visitors, but personnel suffering from acute colds.

Air-borne infections may originate from sources other than the nose or throat of the operating room personnel. Air movement in the operating room is a potential source of danger and should be controlled. Fans are not permissible and it is important with air conditioning that air movement be kept within proper limits to prevent floating bacteria from reaching the site of operation. Sterilization of the air by the use of ultraviolet radiation may be the answer to air-borne infections, but this is too uncertain a subject to discuss here. Many surgeons are not convinced at the present time that the installation of the equipment is warranted by results which have been reported thus far.

4. *Break in aseptic technique.* These breaks are likely to happen in any hospital, even though each member of the operating team is endowed with a surgical conscience and in spite of the fact that proper surgical procedures have been drilled into the operating room workers—the changing services of both interns and nurses leaves a possibility for a break that must be constantly guarded against.

Known infected or contaminated cases should be cultured to determine the causative organism so that proper treatment may be promptly instituted. The use of the sulfonamides in the abdomen in selected cases, at the time of operation as well as subsequently, has definitely reduced infection and cut down the period in hospitalization.

5. *Faulty autoclave or other sterilization processes.* Modern improved autoclave sterilizers have greatly decreased the dangers from faulty sterilization. However, even new sterilizers are not entirely fool-proof and the sterilizing process must, of course, have constant supervision by a competent person who has had proper training and who can be absolutely trusted. Adequate autoclave sterilization is a vital necessity.

6. *Suture material, particularly catgut.* Consideration of suture material as it affects infection has been the subject of much discussion by our foremost surgeons. The use of catgut, silk, linen, cotton and other material each has its advocates, but it appears to be rather generally accepted that finer sutures, no matter what material is used, will reduce the chance of infection and cut down the length of hospitalization. In our own records the use of fine nonabsorbable sutures (cotton) has greatly reduced the patient stay from as much as 15 to 9 days. Incisions heal by

first intention and drainage in breast cases and thyroid cases is no longer necessary.

7. *Trauma to tissues, poor hemostasis, and sutures under tension.* Surgeons generally feel that it is very important that traumatizing of tissues must be kept at a minimum if infection is to be prevented. Adequate hemostasis is deemed most important. Sutures tied too tightly are likely to interfere with the circulation and encourage pressure necrosis. The larger use of nonabsorbable sutures has definitely reduced infections because of the ability to close the wound without drainage.

Care of the patient following operation is likewise important in preventing infection and the following suggestions, while not intended to be exhaustive or to preclude even better procedures, are considered desirable techniques.

Dressings should be done after the day's surgery to prevent carrying infection from the wards to clean operative cases.

Gloves should be worn on the wards in dressing all contaminated cases to prevent cross contamination. A satisfactory technique can be carried out without the use of gloves in clean cases.

Hands should be thoroughly scrubbed after touching any contaminated or infected case, as it has been definitely shown that thorough scrubbing will remove bacteria.

Dressings should not be disturbed before the accepted time for the removal of skin sutures unless there are definite indications for so doing.

A carefully worked out plan of special rounds by the staff men in charge and their assistants to inspect all wounds bi-weekly or more often, will help to discover infections or serum pockets early. If any are found treatment can be instituted at once and an immediate investigation for the cause can be started.

The object of this discussion is to emphasize the need of a method of checking the number of postoperative infections, if you do not have such a system. This record will keep us alert to the situation in our own hospital so that those breaks in technique or sterilization that may be the cause for a larger number of infected cases the past few months as compared with the previous months, can be eliminated. The American College of Surgeons has published recommendations about the recording of infections as follows:

"Infections: A definite plan should be adopted for recording and investigating all infections and wounds that are not healing by primary intention. Every infection of a clean wound should be recorded, investigated, and traced to its source. While postoperative and postpartum infections may result from a number of causes or sources, nevertheless, all sterilizing processes must be carefully checked. The following procedure for investigating wound infections is recommended:

"1. A note on the healing of all wounds is written on the 'wound report' which becomes a part of the medical record.

"2. A report of infection is made in triplicate and is sent to the three persons primarily interested—the director of the hospital, the supervisor of the operating room, and the surgeon. The report should be made by the nurse supervisor of the ward and should include name, number, ward, operation (nature and date), surgeon, assistant, instrument nurse, sponge nurse, date of first dressing, dressing doctor, dressing nurse, date infection first appeared, location and character of infection.

"3. On receipt of the report the superintendent, the operating room supervisor, and the attending surgeon are all responsible for making a thorough investigation of the infection and for bringing the infor-

mation in detail to the medical staff at the time of the regular medical staff conference.

"4. The committee of the medical staff concerned with the study of deaths, complications, infections, and other debit items listed on the monthly analysis report should review the cases to determine the sources of infection and whether or not they are institutional. In this manner it is possible to clear up infections and prevent their occurrence in the future."

Many hospital procedures vary with each hospital and it may be necessary to change the method as suggested and adopt one suiting our own conditions. The important thing is to have a systematic plan of checking and recording the number of our infections or suspected infections. This will serve to keep us on our toes in order to prevent infection, and to investigate breaks in technique when the figures indicate their occurrence.

The responsibility of keeping an accurate record of infections at the Robert Packer Hospital devolves upon the Chief Surgical Fellow (Resident) who carefully follows each case and keeps a record of the result. An outline of the classification which we use has been prepared for me by Dr. Edison A. French, our Senior Fellow in Surgery.

Each wound is classified postoperatively as clean, contaminated, or infected. By definition, a clean wound is taken to be one under surgical asepsis and not involving the opening of the gastro-intestinal tract, the biliary tract, genito-urinary tract, or infected ducts. In addition, the wounds for the removal of the gallbladder for chronic cholecystitis in which the common duct is not opened, and by appendectomy in the absence of acute infection, are classified as clean wounds.

Exceptions, which are classified as contaminated, are wounds requiring skin grafting for closure, wounds in which the skin is not closed, wounds made through a previously infected area, and wounds which are grossly contaminated during the operation by a break in technique. Contaminated wounds are further defined as those not classified as clean in which the operative area has gross infection such as an abscess.

Infected wounds are those made in an area showing a gross evidence of bacterial invasion.

During the postoperative hospital stay, if the wound does not heal by first intention, complication has set in. Complications are listed as hematoma, wound necrosis, disruption, stitch abscess, trivial infection, and serious infection. These terms are defined as follows: Hematoma is a sterile collection of whole blood, serum, or plasma in or about the operative wound. Wound necrosis is necrosis of skin or subcutaneous tissue as the result of infection. Disruption is a spontaneous separation of any or all of the layers of the wound. A stitch abscess is any inflammatory or suppurative process about a skin suture or clip from which an organism can be cultured. Trivial infection is one in which it does not necessitate an increase in expected length of hospitalization and which does not necessarily interfere with wound healing. Serious infection is one which interferes with wound healing or prolongs the period of hospitalization.

An attempt is made here to perform bac-

terial studies in every instance in which an infectious process is suspected. Frequent cultures from peritoneal fluid are taken in contaminated or Class B cases. Repeating again, Class A cases are those that do not have any evidence of infection of the part to be operated upon preoperatively, or in which none of the cavities such as the gastro-intestinal, biliary tract, or genito-urinary tract is opened. All other cases are considered as Class B or potential infected cases.

Following the classification of infections just described, we have compiled data covering a period of the past five years. It should be noted, however, that these figures do not include cases operated upon in our dental or in our eye, ear, nose and throat departments. The data referred to appear at the end of a movie reel which has been prepared to illustrate some of the procedures where infections may arise.

In conclusion I would like to quote what Dr. Frank Meleney says in reference to postoperative infections: "The modern surgeon takes it for granted that the hospital in which he works has taken all of the necessary precautions to minimize or prevent postoperative infections, and, if they develop, he is more than likely to put the responsibility on the hospital and absolve himself from all blame."

That is a challenge to any hospital administrators who are not doing so to work out a method of keeping a record of postoperative infections as a basis for decreasing them to that irreducible minimum to which we all aspire.

3. Roles of Professional and Administrative Staffs in Control of Postoperative Infections, by *Frank L. Meleney, M.D.**

POSTOPERATIVE infections are due, for the most part, to living microorganisms which enter the physiological interior of the body either at the time of operation or shortly

afterward during the period of altered physiological processes.

Ordinarily we think of postoperative in-

* Adapted from *Hospitals* 14:77-79, Dec. 1940.

fections as inflammatory processes in the operative wound, but under this category must also be placed those infections of the respiratory, alimentary, and genito-urinary tracts and of subcutaneous tissues which may beset a patient after an operative procedure. They are important because they prolong hospitalization, increase its cost, delay convalescence, frequently nullify the success of operations, and occasionally cause death.

The responsibility for postoperative infections rests largely upon the professional staff. The doctors and nurses play an equal role in the establishment and maintenance of the rules and regulations as well as the traditions of operating room technique but success would not be possible without the full cooperation and support of the superintendent's office and the conscientious service of the maids and orderlies both in the operating room and on the wards.

I would not have you think that the title of this discussion connotes to my mind that the respective roles of the professional and administrative staffs in this important feature of hospital service are distinct and separate, for I believe that there should be the finest kind of cooperation and the most thorough understanding between the two groups. When the responsibility for success or failure rests upon a single individual he usually tries his utmost to succeed but when the responsibility rests upon many individuals each one is inclined to let the others make greater efforts than he and if failure comes each one may not be so willing to accept his share of the blame.

Let us think over for a little while a list of the various postoperative infections and consider how they come about, how they may be minimized or prevented and how every member of the staff can take his

full share of the responsibility for their occurrence. They are wound infections, tonsillitis, bronchitis, pneumonia, parotitis, gastro-enteritis, cystitis, vaginitis, urethritis, endometritis, peritonitis, septicemia.

First let us consider operative wound infections. It was not so long ago that in every hospital every operative wound became infected and surgery was limited to emergency procedures. Childbirth was often followed by a very high maternal mortality. Patients looked upon an operation as a forerunner of death, and surgeons dreaded the almost constant threat of hospital gangrene, erysipelas, and pyemia, the causes of which they did not know. This tradition even now persists among the laity who are often heard to say that hospitals are places where people go to die, or they may say, "I wouldn't be operated on in *that* hospital."

Now we know the causes of infections and the sources from which the organisms come. It is merely a matter of closing the doors to these sources of contamination by the constant vigilance of everyone concerned and progressively minimizing the number of organisms entering the wound from each and every one of these sources. It takes constant vigilance and the development of a sterile sense which is almost subconsciously aware of a break in technique on the part of the individual himself and all those about him. It demands the careful training of new members of the ever changing personnel in the operating room. It requires fearlessness on the part of the least important member of the team to call to account the most important member of the team, if he makes a break in sterile technique. It calls for an expression of appreciation rather than irritability from anyone whose attention is called to his own shortcoming. It demands the careful keeping of records of wound healing

and the frequent reporting of results so that there may be a friendly rivalry among the members of the staff. Then the operators will become bacteriologically minded and will try to improve their score from year to year.

I believe that it is safe to say that where careful records of wound healing are not kept and where weekly reports are not made at staff conferences, the incidence of wound infections in any hospital, either large or small, will run from 15 to 20 per cent in clean cases. But when the duty is assigned by the administrator of the surgical service to some conscientious member of the staff, and the wounds are scrutinized for evidence of infection and the reports are made and explanations sought, the whole tone of the sterile technique takes on a higher pitch, the doors which have been open for the entrance of contaminating organisms are gradually closed more tightly, operative technique improves, and the incidence of wound infections steadily falls. That has been the experience in many places.

The same experience will come to any of the hospitals if there be any such represented here, which have not yet gone to the trouble of keeping wound healing and infection records. Records in our own hospital since 1925 (Presbyterian Hospital, New York City) show how the incidence of wound infection has been steadily lowered by a continuous study of the problem and the gradual closing of the doors to all sources of bacterial contamination. These figures are shown in the accompanying table.

Everything that is done to close the doors to bacterial contamination in the details of sterile technique costs money and the administration of any hospital wants to know if these costs are justified. Let us take them up one by one.

First the autoclave. In some hospitals there are autoclaves which have no system for the evacuation of air. A pressure gauge is depended upon for the determination of adequate temperatures. There is no device for recording the duration of the sterilizing process or for time-locking the door automatically until the sterilization is complete. With such autoclaves air pockets prevent penetration of superheated steam and unconscientious technicians may shorten the process and not be apprehended. Frequently from such autoclaves unsterile goods are taken to the operating room. It costs more money to install an autoclave which has all of the necessary devices to ensure complete sterilization, but this is one thing on which the administration cannot economize. We must know that materials coming from autoclaves are absolutely sterile. Also frequent periodic bacteriological tests must be made with resistant sporeforming organisms to check the proper and continuous efficiency of the mechanism.

It costs more to have water sterilizers with the necessary means for sterilizing the water level gauges and with protection for the spigots. It costs more to have instrument sterilizers with vapor eliminators and trap systems which prevent the reflux of sewage water.

With regard to the operating room itself, methods must be employed to minimize bacterial contamination from the air. The ventilating system must include filtration devices. Balconies have to be built to keep visitors away from the operating room floor. Gowns and masks must be supplied for the visitors even in the balconies and glass partitions must be used to minimize the contamination of the upper air levels of the room itself from the unsterile balconies. Canopies must be provided for sterile tables. In recent years ul-

traviolet radiation has been advocated to materially cut down air contamination. This is a large item of expense but if time proves its worth it will have to be generally adopted.

The noses and mouths of the members of the operating team and the unsterile occupants of the operating room must be adequately masked. This does not require much added expense for the hospital but does require the fullest cooperation on the part of the professional staff. The ideal

common source of contamination of the sterile field with organisms. Coming from a human environment in which they have been multiplying, these bacteria are almost immediately transferred to a similar environment in which they can go right on growing with no necessity for adaptation. The administration of the hospital or the director of every surgical service should take the responsibility of being certain that this simple and relatively inexpensive minimizer of bacterial contamination is absolutely maintained.

WOUND HEALING: CLEAN CASES 1925-1939

Year	No. of cases	Percentage infected		
		Total	Trivial	Serious
1925	558	14.0	10.0	4.0
1926	581	15.0	11.0	4.0
1927	653	15.0	12.0	3.0
1928	640	11.0	9.0	2.0
1929	771	9.0	7.0	2.0
1930	747	10.0	7.0	3.0
1931	950	7.1	5.4	1.7
1932	1,053	5.3	4.2	1.1
1933	1,132	4.8	3.6	1.1
1934	1,279	3.7	2.8	.9
1935	1,417	3.1	2.5	.6
1936	1,558	3.1	2.5	.6
1937	1,614	2.2	1.4	.8
1938	1,668	2.1	1.6	.5
1939	1,725	2.6	2.0	.6

mask has not yet been found—that is, one which will absolutely prevent the escape of bacteria from the nose and mouth while permitting the individual to breathe with some degree of comfort. However, in the majority of hospitals one sees surgeons who are even unwilling to subject themselves to the slight inconvenience that is represented by wearing a fine meshed gauze mask incorporated into a helmet covering the head and neck.

They do not realize that this is the most

The skin of the patient is a frequent source of contamination of the wound with organisms which are able to survive in the deep sebaceous and sweat ducts. Efforts are made to remove these bacteria as thoroughly as possible by means of fat and grease solvents such as alcohol and ether followed by the application of antiseptic substances. Nothing has yet been found which will invariably reach and destroy these organisms but many costly preparations have been advocated and employed which are not one whit better than the time honored tincture of iodine. It is recognized, however, that even iodine adds but a small margin of safety over the cleanliness obtained by rubbing with soap and water followed by the fat solvents.

An adequate scrub-up of hands and arms depends upon the conscientious efforts of the professional staff. In this field also the administrative staff may well question the use of expensive antiseptics which are sometimes used after the more important work has been done by a scrubbing brush with soap and water.

With regard to sterile suture material, the administration must be willing to pay the price charged by those manufacturers who are able to safeguard every step of the process and can be depended upon to furnish a sterile product.

It is obvious that with all of these sources of contamination playing a role in every operation it is going to be difficult in any given case to determine the source of an organism which in fact does manage to enter the wound, gain a foothold, and produce an infection. It is likewise difficult to place the responsibility upon any one member of the professional staff. It requires the utmost vigilance and cooperation of every member of the operating room group, including the maids and orderlies which are the representatives of the administrative staff. The hospital director must be willing to undergo any expense which the professional staff feels justified in asking for until bacterial contamination has been brought down to the irreducible minimum.

The administration must likewise provide for a fully equipped bacteriological department which can constantly check up on the multitudinous factors of sterile technique and which, if a wound infection does occur, can promptly determine the nature of the infecting organism and trace it back to its source. This effort should always be made and frequently it will be successful. The search will at least keep the professional staff interested in the problem of wound infection and constantly encourage the surgical group in the effort to lower the incidence of wound infection.

Those postoperative infections which are due to the entrance of microorganisms into the body during the period of altered physiological processes must likewise be minimized by the combined efforts of the professional and administrative staffs.

For example, postoperative infections of

the respiratory tract may be cut down if experienced anesthetists are employed who have available and know how to use the proper apparatus and proper methods for the administration of the anesthetic, which will minimize the irritation of the bronchial tree, the formation of mucus, and the introduction of mouth organisms. This responsibility rests largely upon the professional staff. But the administration must provide adequate nursing personnel to properly care for the patients in the immediate postoperative period when the danger of developing pulmonary complications is greatest.

With regard to the infections of the alimentary tract, the responsibility is more on the administrative staff which controls the proper handling and serving of the food.

Cystitis resulting from catheterization is again a professional responsibility as are those infections resulting from unsterile hypodermic, intravenous, or subcutaneous injections. Time must be given to thoroughly sterilize the needles and syringes for these treatments and for the proper cleaning and treatment of the skin. One must not depend upon the quick washing of a syringe with alcohol as is done in some institutions.

From this brief review of postoperative infections I hope that I have made it clear that while the professional and administrative staffs each have their respective roles to play in the control of postoperative infections, complete cooperation is necessary to attain the goal, which is to reach the irreducible minimum in the number of these infections in the most economical way.

4. You Can Save in the Surgery, by *Raymond W. McNealy, M.D.**

ECONOMY in the surgical field of the hospital should not be confused with parsimonious or penurious practices that might jeopardize the margin of safety to the pa-

tient. We cannot be concerned primarily with the dollars-and-cents attitude of econ-

* Adapted from *Mod. Hosp.* 58:43-44, June 1942.

omy because we are dealing so frequently with the dramatic crises of life; our first concern must be for human beings rather than for cost.

True economy should be an orderly management of material, tools, and furnishings so that there will be no loss or waste.

In these anxious days, it behooves us to consider seriously the proper use of all the supplies and equipment of the surgical pavilion, for in our modern hospitals such equipment represents a considerable investment and probably stands second only to the x-ray department in cost of outfitting. We are, moreover, faced with the fact that much of our armamentarium and many of our supplies stand high in the list of almost unattainable priorities.

In some fields, the possibilities of substituting equally efficient but less expensive materials must be reviewed frequently, because the market is rapidly becoming depleted of certain types of equipment that we have long regarded as commonplace and inexhaustible. We must zealously conserve those instruments and supplies that will soon become increasingly difficult, if not impossible, to replace.

It would seem unnecessary to remind professional people that they should exercise extreme care in the handling of tools of such precision as surgical instruments. They are expensive, carefully designed, and delicately fashioned. That they should remain in perfect working condition needs no emphasis when we consider the fact that so much depends on the accurate application of each one. The injudicious utilization of delicate forceps on surgical drapes, bones, and heavy fasciae should be avoided as far as possible. Such usages tend to destroy the ratchets and to impair the precision of their interlocking devices.

In this connection, we have found many

places in which to employ the lowly spring type of clothespin. We use it to fix sheets to the anesthetist's shield and to fasten drapes about the solution bottles; in many other similar ways it has proved satisfactory. The efficiency of our much more costly forceps and clips is more quickly destroyed when they are employed for such purposes.

It would seem superfluous to go into much detail about the proper routine cleansing, oiling, and sterilizing of forceps, hemostats, and other instruments. However, it may not be recognized widely enough that the careless heaping up of instruments in pans and trays and the dropping of large numbers of miscellaneous implements into containers do much to mar them and destroy their working mechanisms and surfaces. Permitting instruments to stand half covered by water or still wet from sterilization is conducive to corrosion and rusting.

Supervisors in the operating room should give attention to the prompt replating and repair of surgical tools. If this is done regularly, the life of the instruments will be prolonged considerably. Scalpel blades may be resharpened four or five times before they are finally discarded.

Few of the personnel of the operating rooms appreciate the amount of breakage that occurs in the course of a month. An impressive lesson might be taught without words if all the instruments and glassware broken during one month were collected and displayed on a table or in a case in the operating room corridor. No comment would be necessary other than a label with the total cost of breakage. This need not be a permanent display, but if done at intervals it would direct attention forcefully to the part that proper care plays in the economical use of instruments.

Perhaps only the laundry workers have

an accurate picture of the unnecessary destruction of linen that takes place in a hospital. In the care of linen there are two economy measures that should be kept in mind constantly.

The first has to do with the draping of sheets and towels about the operating field. The injudicious use of towel clips, which make sizable holes in these drapes, should be avoided. Even more carefully should the towels and sheets be removed when the operation is finished. It is here, during the breaking up of the sterile arrangement, that a quick jerk or pull may tear large holes in sheets or towels if the retaining clips and pins have not been carefully sought out and removed.

The second economy measure in the care of linen lies in the careful and immediate washing out of discharge stains and blood. If this is done before they have dried into the cloth, it requires much less friction and wear to remove them.

Salvaging of used gauze is a source of great saving in many hospitals. The gauze may be washed, stretched, folded, wrapped and autoclaved and then used for scrub sets, floor dressings, and minor surgery. Every piece of torn sheet, drape, napkin, towel, and pillow slip should be saved and cut into standard-sized squares. These, when employed as wrappings for sterile supplies of all kinds, can be used over and over again.

When packages of gauze folds have been opened but not used, the pieces should be repackaged immediately and returned to the sterilizing room; they should not, under any circumstances, be thrown among the discarded, used folds.

Rubber gloves are going to be increasingly difficult to obtain in adequate numbers. It is possible that little can be added to what has already been taught those familiar with operating room procedure,

but many of the familiar warnings can be reemphasized. Gloves should never come in contact with oily substances, such as vaseline and ointments; neither should they be permitted to contact adhesive plaster. The time of autoclaving must be watched carefully and no overheating should occur. It is important that gloves be powdered adequately inside and out before sterilization in order to prevent the fingers from sticking together. The common type of household glove is serviceable and economical in the application of plaster dressings.

So many published articles are appearing at this time on the use of substitutes for silk that we need to mention only the fact that cotton thread would seem to be a suitable and inexpensive substitute. Catgut is entirely a domestic product and we need observe only the usual care and economy in its handling. Surgical needles must be carefully treasured, as they are difficult to replace. Care on the part of surgeons and scrub nurses may keep breakage and loss of precious needles at a minimum.

Soap dispensers that have outlived their efficiency should be supplanted by new ones or their working parts should be rechecked and repaired. Much waste takes place when they leak or dispense excessive amounts. Many hospitals find bar soaps to be both economical and efficient and they save the expense of installing dispensers in the scrub-up rooms.

In the use of antiseptic solutions, it is easy to tread on tender toes. There are probably more surgical fetishes in this field than in any other. If surgeons and operating room personnel can be impressed with the fact that soap and water will do a great deal to reduce the likelihood of infection from skin surfaces, there will be little need to stress the economical

use of the various solutions used for skin preparation. One of the most wasteful methods practiced is pouring considerable quantities of antiseptic solutions into medicine glasses or similar containers and then discarding what is left after one field preparation. It should go almost without saying that such a practice must be abandoned if the economy program is to be successful.

Alcohol is already a considerable item of expense in hospital budgets. The use of alcohol dispensers should obviate the wasteful evaporation that takes place when solutions of alcohol are placed in pans and left standing in the operating rooms.

A searching investigation might uncover many more activities that would

contribute to economy. But it is difficult to draw any sharp lines along which really practical saving can be directed. The fact that the entire nation is economy conscious may make it much easier to uncover those extravagances which exist in many institutions and which, in times of peace and plenty, are seldom emphasized. In most hospitals supplies have been so generous that many conscientious workers have not appreciated what savings may be effected by a judicious economy.

A final note might be sounded by suggesting that every economy measure should be weighed carefully so that in no instance may it be said that we are penny wise and pound foolish.

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CHAPTER XI. OBSTETRICAL SERVICE

1. Standards and Recommendations for Hospital Care of Newborn Infants*

TO assist hospitals in modifying some of their procedures while maintaining the recognized standards, this pamphlet presents a statement of such standards, representing in general the consensus of present pediatric opinion, along with certain recommendations that may be helpful in the hospital's efforts to maintain these standards under wartime conditions.

The standards presented here are not minimum standards, pointing out the least that can be done for infants in hospital nurseries without jeopardizing their lives. Rather they are standards pointing out the type of care for such infants that will best safeguard their health.

It is realized that many hospitals may not be able to attain all these standards at once. It is expected, however, that such hospitals will find this statement of standards useful in evaluating their present methods of care and the adequacy of their equipment and in setting a goal for future attainment.

MEDICAL SERVICE

The medical staff for the nursery service should be so organized that it will be the duty of one physician, or a committee of physicians, to maintain standards for the care of all newborn infants. Close cooperation should be maintained between the physicians caring for the mothers and those caring for the infants.

A physician with special training and experience in the care of newborn infants should serve as chief physician to the nursery service. He should visit the nursery at regular intervals, should be available for

consultation, and should conduct ward rounds and staff conferences in relation to problems concerning the newborn infants. With the cooperation of the obstetric service, he should outline a plan for care, the details of which should be made available in written form for the use of physicians and nurses. He will be responsible for analysis of records to determine the causes of morbidity and mortality among both full-term and premature infants; for making such data available promptly to the hospital authorities; and for holding regular clinical-pathological conferences.

There should be at least one physician, preferably a resident physician, assigned to the nursery, who will be on call day and night. He should visit the nursery at least once a day.

A physician should examine each infant on admission to the nursery and before discharge, and at other intervals as indicated. Careful records of each infant's clinical course should be kept.

NURSING SERVICE

If the quality of nursing care is to be maintained, it is necessary that hospitals study and evaluate their nursing procedures with a view to making the most economical use of nursing time without lessening the adequacy of the care given.

The procedures described in this bulletin have been planned in an effort not only to improve the care given to newborn

* Adapted from U.S. Children's Bureau, Federal Security Agency, Publication No. 292, Washington, Government Printing Office, 1943. 14 pages.

infants but also to promote economy in the use of nursing time. It is hoped that many hours of such time will be saved through the recommended modifications in procedure, such as omitting from the delivery-room routine the weighing, measuring, and oiling of the infant; omitting the bath for the first week or ten days of the infant's life; lengthening the intervals between weighing; reducing the number of garments put on the infant; substituting care at the individual bassinet for the use of common bathing and dressing tables; and assigning nonprofessional duties to workers other than nurses.

The staff¹ of the nursery unit should be under the supervision of a graduate nurse with advanced training in the care of newborn full-term and premature infants. The less well qualified the staff, the greater the need for expert supervision.

It is recommended:

That all graduate and student nurses and auxiliary workers, before being assigned to a nursery unit, should have had supervised pediatric experience, and should have demonstrated aptitude for such work.

That the care of premature infants be entrusted to graduate nurses only, or, if this is not possible, only to student nurses who have had training in the care of such infants.

That graduate and student nurses and auxiliary workers assigned to the care of newborn infants have no other patients—adults or children—under their care.

That no one—graduate or student nurse or auxiliary worker—be assigned to the care of newborn infants (1) unless approval of such assignment has been given by the hospital's employee-health service, or, in the absence of such a service, by a physician authorized by the hospital to approve such assignments, and (2) unless

the worker's previous assignment has been on a noninfectious service.

Graduate nurses. Efforts should be made to staff the nursery unit in such a way that the proportion of graduate nurses to other workers—student nurses and auxiliary workers—will be as large as possible.

Day and night, there should be at least one graduate nurse with advanced training and experience in the care of newborn full-term and premature infants assigned exclusively to the care of such infants or the supervision of their care.

Student nurses. If student nurses are assigned to the care of newborn infants they should have had previous supervised pediatric experience.

Auxiliary workers. Although the ideal nursery staff is made up of either all graduate nurses or graduate nurses assisted by student nurses, it is sometimes necessary to consider supplementing the services of graduate and student nurses with those of auxiliary workers.

It is recommended that all auxiliary workers, compensated or uncompensated, be assigned so far as possible to nonprofessional duties. If assigned to the care of newborn infants they should have had instruction and supervised experience in the nursing care of children, during which time they should have demonstrated ability, interest, and a sense of responsibility. Their duties should be clearly de-

¹ In the preparation of standards and recommendations with regard to the nursing staff the following publications have been consulted: *Manual of the Essentials of Good Hospital Nursing Service* (1942, 202 pp.) and *Administrative Cost Analysis for Nursing Service and Nursing Education* (1942, 50 pp.), both published by the American Hospital Association and the National League of Nursing Education, New York, and *Distribution of Nursing Service During War* (1942, 23 pp.), published by the National Nursing Council for War Service, New York.

fined; they should be adequately supervised, and the work assigned to them should be commensurate with their training.

In planning for the use of part-time workers it should be remembered that the fewer the workers that enter a nursery the less is the danger of introducing infection.

Ratio of nurses to infants and hours of nursing care. At least 3 hours of nursing care per 24 hours should be provided for full-term infants and 6 hours for premature infants. This will require that at all times, day and night, nurses (or nurses and auxiliary workers) be provided in the ratio of at least one for each eight full-term infants and at least one for each four premature infants.

NURSERY UNIT²

Nurseries

In every hospital with a maternity service there should be provided at least one nursery for well infants and at least one separate nursery, the so-called "suspect nursery," for infants under observation either because they have been exposed to infection or because it seems likely that they are developing an infectious condition. Except in small hospitals, in which fewer than four premature infants are expected to be under care at one time, there should be at least one separate nursery for premature infants. Provision should be made also for space remote from the nursery unit for the care of infants who are ill and for infants who, though not born in the hospital, are admitted in the early weeks of life.

Size and Construction

It is recommended that each nursery house relatively few infants (1) because it is recognized that individual care of

each infant is desirable and that the smaller the number of infants that are cared for in a given space the less the danger of infection and (2) because the fewer the number of individuals entering a given room the lower the bacterial count of the air.

For these reasons a standard has been set of one nursery for each eight full-term infants, the maximum number that one nurse can care for satisfactorily. (See Nursing Service, p. 297.)

Since premature infants require more nursing care than full-term infants, a standard has been set of one nursery for each four premature infants, the maximum number that one nurse can care for satisfactorily.

In small hospitals, in which it is anticipated that less than four premature infants will be under care at any one time, space for premature infants should be provided in the nursery for full-term infants, rather than in a separate nursery. Suitable environmental temperature and humidity may be maintained for these infants by use of incubators or heated bassinets.

The suspect nursery should contain not more than three bassinets. One bassinet in the suspect nursery should be provided for each five bassinets in the nursery for well full-term infants. (Even the smallest hospital should have at least two bassinets for suspect cases.)

The suspect nursery should be completely separated from the nurseries for well infants.

For the care of infants that are ill, isolation facilities should be provided in a part of the hospital remote from the maternity unit. Even in small hospitals the suspect nursery should not be used for infants who

² The term "nursery unit" is used here to include the nursery or nurseries proper and all accessory rooms adjacent to them and used in conjunction with them. The term "nursery" is used solely for a room in which infants are housed.

have conditions that have been definitely diagnosed as infectious.

The nurseries for full-term and for premature infants should be located near the maternity ward, but out of line of traffic from other services. There should be outside windows to admit daylight and sunlight. Provision should be made for controlling the sunlight in hot seasons and hot climates.

In the planning of a nursery consideration should be given to the amount of air space and floor space needed for the proper care of each infant. The floor space should be sufficient (1) to permit each bassinet to be separated from any other bassinet and from any wall or partition; (2) to provide room for the needed furniture and other equipment, including that needed for bedside care of each infant; and (3) to permit attendants to give bedside care to each infant and to pass easily from bassinet to bassinet.

It is recommended:

That the total nursery space be adequate to provide an *average* per infant of 300 cubic feet of air space and 30 square feet of floor space.

That bassinets be separated by partitions forming cubicles, each cubicle sufficiently large so that the bassinet will stand at least 6 inches from any wall or partition and so that there will be at least 2 feet of floor space beside each bassinet to permit bedside care. Even if the bassinets are not separated by partitions, these same space measurements are recommended.

That aisle space at least 2 feet wide—preferably 3 feet—be planned, to provide a passageway for attendants.

For each suspect nursery, a minimum of 40 square feet and 400 cubic feet should be provided for each bassinet. This will give adequate space not only for bedside care but for bedside treatment.

Control of Atmospheric Conditions

Adequate ventilation and control of temperature and humidity contribute to the welfare of newborn infants, especially premature ones. The ideal arrangement is complete air-conditioning.

It is recommended that the nurseries be equipped with complete air-conditioning; that is, controlled temperature, humidity, and air motion; that the air be filtered and that it be sterilized by ultraviolet light or by some other method.

In plans for new hospitals, if installation of air-conditioning is not possible at the time of construction, space for ducts at least should be provided, so that later installation of air-conditioning will be facilitated.

In the absence of air-conditioning, windows or air ducts must be depended upon as the source of fresh air, and they should be so arranged that there will be circulation of air without drafts around bassinets. The air current should be directed so that it will not strike the infants. Partitions forming cubicles should reach only part way to the ceiling so as to allow for ventilation. There should be thermostatic control of room temperature. Sterilization of air at entrances to cubicles provides added protection. For premature infants, who require relatively high temperature and humidity, the environment may be controlled by the use of specially equipped incubators.

Walls, Ceilings, and Floors

The walls, ceilings, and floors of the nurseries and accessory rooms should be constructed of nonabsorbent material that can be washed, and it is preferable to have all corners rounded to facilitate washing. Sound-proofing is desirable. As was previously stated, it is recommended that partitions be placed between bassinets and

that the partitions in non-air-conditioned nurseries should reach only part way to the ceiling so as to allow for ventilation. A section of each partition, extending about 18 to 24 inches above the bassinet level, should be transparent in order to permit the nurse to view all the bassinets from her station.

A viewing window should be provided between each nursery and the nurses' station, and one between each nursery and the corridor so that relatives may see the infants without coming in contact with them.

Furnishings and Equipment

Bassinets. Each bassinet should be of the type that consists of a single metal stand with a steel-band basket, which is removable to facilitate cleaning.

Bedside tables. A bedside table with a drawer and a lower compartment with a shelf and a door should be furnished for each bassinet, to serve as a work table and as a cabinet for storage of a 24-hour supply of equipment needed for care of the infant. The top of the table should be about 16 inches by 20 inches.

Lavatories. In each nursery there should be a lavatory with hot and cold running water. Faucets should have knee or foot control.

Diaper cans. In each nursery there should be at least one metal sanitary can for diapers, with the top controlled by foot pedal. Removable paper bags for lining this can should be provided.

Linen hampers. In each nursery there should be at least one hamper with removable bag, for soiled linen other than diapers.

Incubators. Nurseries where premature infants are expected to be cared for should have incubators. The incubators may be either commercial or home-made. They

should conform to specifications that have been prepared by the National Bureau of Standards and the Children's Bureau.³

Accessory Rooms

Chartroom. The chartroom should serve as a "control station"; that is, it should be so situated that it serves as the main entrance from the corridor into the nurseries for well infants.

A viewing window between the chartroom and each of the nurseries adjoining it should be provided.

The nurse's desk should be so placed that she will be in a strategic position in relation to the viewing windows and the door from the chartroom to the corridor.

Nurses' work space. The nurses' work space is a combined supply and utility room. In smaller hospitals the work space may be a part of the chartroom. In larger hospitals a separate workroom should be provided. Its minimum equipment should be a sink, an instrument sterilizer, a bottle warmer, a table or shelf, and a cupboard.

Examining room. In order that traffic into the nursery may be reduced to a minimum, it is recommended that an anteroom be equipped as a physicians' examining room.

Between the examining room and the nursery there should be a sliding window or a Dutch door, with a shelf or table in front of the opening to serve as an examining table upon which the nurse places the infant. This will permit the physician to examine the infant without going into the nursery.

The examining room should be well lighted, preferably with natural light in the daytime, and it should be provided

³ Ethel C. Dunham, H. C. Dickinson, Grace J. Gowens, and Juanita Witters, Incubators for premature infants, *Am. J. Pub. Health* 30:1415-1421, December 1940.

with a lavatory, a table for use as an examining table, and a desk.

Treatment room. In smaller hospitals the examining room may serve also as the treatment room.

In larger hospitals a separate room outside the nursery unit should be provided as a treatment room for infants other than suspect or isolation cases. This room should be furnished with a treatment table, a lavatory, a small instrument sterilizer, and a cabinet for supplies. It is assumed that solutions and other supplies used in giving treatments will be requisitioned from the general hospital supply room and that instruments and needles suitable for use in treating infants will be made available.

Demonstration room. Facilities should be provided so that the nurses can instruct mothers, before discharge to their homes, in methods of feeding, bathing, and dressing their infants. In larger hospitals a demonstration room should be provided for this purpose. In smaller hospitals demonstrations may be given in the nursery, in front of the viewing window, to the mothers seated in the corridor. The nurse's instructions may be made audible to the mothers by means of a loud speaker.

Milk room. The location of the milk room and the supervision of the work of making up the feedings will vary with the type of hospital, its personnel, and its special administrative problems. Under any circumstances it is essential that a separate room be provided for preparing the milk mixtures and that this room be used for no other purpose. The milk room should be situated where the danger of contamination is least and where the most adequate supervision can be given, by a dietitian or nurse who is experienced in milk-room procedures. If the hospital has a dietitian it may be best to locate the milk room near the general diet kitchen and to

have the preparation of the milk mixtures supervised by the dietitian.

It is recommended that the milk room be divided into two sections by a partition in which there is a Dutch door, a sliding window, or a sterilizer with doors on each side. This permits the exclusive use of one section of the room for receiving and washing glassware and other utensils used in feeding the infants, and of the other for sterilizing the utensils and for preparing and storing milk and milk mixtures. There should be two Dutch doors on the corridor side of the milk room, one for each of the two sections of the room; one of these doors is for receiving used bottles, the other for distributing sterile feedings.

The minimum equipment of the milk room should be a refrigerator, a sink, a lavatory, sterilizers, a device for cooling the bottles of milk mixture after sterilization, cupboards, and a work table; all these should be so constructed that they can be readily washed.

Milk-room procedure should be carried out with strictly aseptic technique. Milk mixtures should be poured into sterile bottles. It is recommended that nipples and nipple caps be put onto the bottles in the milk room and that final sterilization of the milk mixtures in the bottles be done by autoclaving. Cooling should be rapid and should be complete before the bottles are placed in the refrigerator. The temperature inside the refrigerator should be between 40° and 45° F.

Nurses and others working in the milk room should wear gowns and surgical caps. It is best that these workers have no other responsibility besides their work in the milk room. During the entire period that these workers are assigned to milk-room duty they should have no contact with patients that have infectious conditions.

TECHNIQUE OF CARE

The nursing procedures to be followed in the care of the infants should be planned jointly by the medical and nursing staffs and should be available in written form to attending and resident physicians and to nurses.

The superintendent of nurses should have the responsibility for seeing that the technique of caring for the infants is carried out.

Certain recommendations in regard to the basic principles of care are made here with full recognition of the considerable diversity of opinion that exists with respect to some of the details of technique.

Delivery-Room Care

The care that the newborn infant receives at the moment of birth and in the period after birth while he is still in the delivery room plays an important role in his future well-being. The abrupt change from uterine to extra-uterine environment requires major adjustments in the infant's circulatory and respiratory systems during the period immediately after birth. Proper delivery-room care, aimed at prompt initiation and maintenance of respiration and carried out in such a way as to conserve the infant's body heat, will facilitate these adjustments.

Preparation for care of the infant in the delivery room should include provision of adequate personnel as well as of suitable environment and equipment.

Staff

It is recommended:

That a nurse trained in the care of newborn infants be assigned to the delivery room, to have as her sole responsibility the care of the infant.

That a physician trained in the care of

newborn infants be on emergency call at all times and be present in the delivery room during premature and other abnormal deliveries.

Environment and Equipment

The delivery room should be warm, and the temperature should be maintained at the level considered by the medical staff to be optimum for mother and infant. In addition, the following equipment should be always ready in advance:

A smooth flannel blanket, in a sterile package, warmed and ready to receive the infant at birth. A heat lamp on a standard is helpful in keeping the infant warm.

A safe, suitable type of suction device for cleaning the infant's upper respiratory tract of mucus and other fluid.

An oxygen tank with mechanism for measuring and controlling the amount of gas and with a suitable mask or other device for administering oxygen to an infant.

Equipment suitable for clamping, cutting, and tying the umbilical cord and for dressing it. It is recommended that the clamping of the cord be delayed until pulsation has ceased, so that the infant may receive the full complement of placental blood.

Some type of heated bed or incubator—warmed in advance. (See p. 301.)

Provision for prophylactic treatment of the infant's eyes.

A supply of vitamin K for parenteral use. Some device for indentifying infants before they leave the delivery room—beads, footprinting equipment, or other.

It is recommended that the weighing, measuring, bathing, and oiling of the infant be omitted as part of the delivery-room routine. Any of these procedures that the medical staff considers desirable may be carried out later in the nursery after the infant's temperature has become stabilized. Weighing may be necessary to

determine an infant's need for special treatment.

Transit from Delivery Room to Nursery

Provision should be made for keeping the infant warm and protected from exposure to infection during transit from delivery room to nursery.

It is recommended that a heated bed or a warm carrier (sometimes called a "hand ambulance") be used for transfer of the infant. If the infant is carried by a nurse he should be wrapped in a warm blanket and the nurse should wear a mask and a gown.

An elevator when used by an attendant transporting an infant should be free of other passengers.

Nursery Care

Environment

SPACE. The amount of space needed for the care of the infant is discussed under Nurseries, page 299.

CONTROL OF TEMPERATURE AND RELATIVE HUMIDITY. It is recommended that the temperature of the nurseries for full-term infants be controlled at about 80° F., day and night, and that the relative humidity be about 50 per cent.

For premature infants higher temperature and greater relative humidity may be required. A separate air-conditioned nursery is desirable, but if this is not to be had, proper environmental conditions may be obtained for them by the use of incubators. It is recommended that before an incubator is made or selected, the specifications published by the National Bureau of Standards and the Children's Bureau be consulted. (See footnote 1, p. 298.)

Observation and Examination

The newborn infant should be seen by

the head nurse as soon as he is admitted to the nursery. Observations of his condition as indicated by color, breathing, activity evidence of bleeding, and so forth, should be made without removing him from his crib.

A physician should see at once every premature infant and any infant in whom the nurse has observed any abnormality.

Every infant should receive a complete examination by a physician as soon as, in his judgement, the infant's general condition warrants it. The examination should be conducted in such a way that the infant's body heat will be conserved.

It is recommended:

That full-term infants be examined by the physician in an anteroom to the nursery, especially equipped for examinations.

That premature infants be examined by the physician in the nursery, the infant remaining in the heated bassinet or incubator during the examination. If treatment of a premature infant is necessary, this also should be done with the infant remaining in the heated bassinet or incubator, if possible.

Special Measures to Protect Infant from Infection

The infant should be cared for in such a way as to guard him against infection. No infant born outside the hospital should be admitted to the nursery for infants born in the hospital. Visitors should be excluded from the nursery.

It is recommended that care be given to each infant at the bedside, with strict aseptic technique. Common bathing and dressing tables should not be used.

HAND-WASHING TECHNIQUE. Strict hand-washing technique should be maintained by physicians and nurses. Hands should be washed with soap and running water before and after handling, diapering, or feed-

ing each infant. It is especially important that the nurse wash her hands *after* diapering the infant and *before* feeding him. If this technique is to be carried out it is essential that lavatories be conveniently located inside each nursery as well as in each service room.

GOWN, CAP AND MASK TECHNIQUE. A gown should be worn by anyone working in the nursery. Fresh gowns should be provided daily. If the use of caps is required by the medical staff, they should completely cover the hair. If the use of masks is required by the medical staff, they should be so made that they are effective in preventing droplet infection and they should be changed frequently—at least every 2 hours.

SUSPECT CASES. Any infant who has such symptoms of infection as loose stools, frequent stools, or fever, or who has eye, skin, vaginal, or other infection, should be removed to the suspect nursery without delay. The head nurse should have the authority to order this on her own responsibility. If the infant is found to have an infectious condition, he must be transferred promptly to an isolation nursery elsewhere in the hospital.

RITUAL CIRCUMCISIONS. Provision should be made to have ritual circumcisions performed elsewhere than in the nursery unit. Aftercare should be given in the suspect nursery because of danger of infection.

General Care

CARE OF SKIN. The proper care of the skin of newborn infants is important in preventing infection. At present the consensus seems to be that the less manipulation the less danger of infection. It is recommended that no water or oil bath be given during the first week or 10 days after birth, and it may be wise to postpone the premature infant's bath for considerably longer. The

vernix may be gently wiped away from the folds of the infant's skin with warm sterile mineral oil on sterile cotton or soft sterile gauze. Each time the diaper is changed, sterile oil should be applied to the soiled or wet areas of the skin.

The oil for the infant's skin should be kept in a sterile glass container. Before oil is applied, a small amount should be poured into a dish into which a piece of cotton can be dipped easily. Any oil remaining after use should be thrown away.

Care should be exercised to keep the cord dressing and umbilical area sterile. The binder used to hold the cord dressing in place should be made of soft, sterilized gauze.

DIAPERS AND OTHER CLOTHING. It is recommended that only one piece of clothing besides the diaper be worn—a gown open in the back—cotton in summer, flannel in winter. The diaper should be of soft material.

For premature infants under suitable environmental conditions, the same type of gown should be used. Diapers should not be used for premature infants; a small pad of absorbent cotton or disposable tissue, covered with gauze, should be placed under the infant to serve as a diaper.

A 24-hour supply of clothing should be kept at the bedside.

BEDCLOTHES. A 24-hour supply of bed pads, sheets, and blankets should be kept at the bedside.

TAKING INFANT'S TEMPERATURE. It is recommended that each infant's thermometer be kept at the bedside in a suitable container.

It is recommended that consideration be given by the medical staff to taking the temperature by axilla in suitable cases.

It is recommended that the temperatures of normal infants be taken not oftener than twice a day.

WEIGHING INFANT. Each infant should be weighed in his blanket at the bedside. The scale pan should be freshly covered with paper for each infant. It is recommended that the scales be kept on a table with wheels, so that they may be moved easily from bassinet to bassinet.

It is recommended that well infants be weighed daily for the first 4 days; then only every other day, or, in some cases, only twice a week.

Feeding

It is recommended that efforts be made to have every mother of a full-term infant nurse him. The efforts should include encouraging the mother's cooperation, withholding artificial feeding even in the presence of early weight loss (provided this is not excessive), giving only water until the mother's milk begins to come or until it is evident that the mother is not going to be able to supply an adequate amount of breast milk.

It is recommended that no premature infant be put to the breast without an order from the resident physician. It is recommended that for premature infants every effort be made to maintain the mother's milk supply and to have the infant nurse as soon as he is physically able.

Whenever any infant is being fed from a nursing bottle the bottle should be held, not propped.

TECHNIQUE OF BREAST FEEDING

Preparation of mother. It is recommended that the mother wear a nightgown that opens in front; that her hands be washed with soap and water before nursing and her breast be washed before and after nursing; that the baby lie on a clean paper or cotton towel during nursing; that all visitors, even members of the family, be excluded while the mother nurses the infant.

Transportation of infant to mother. The infant should be wrapped in a blanket and carried to the mother by a nurse who wears a gown and a mask, or wheeled in his own bassinet.

Expression of breast milk. If an infant cannot nurse, particularly a premature infant, the mother's milk should be expressed and fed to him. Since opinions vary in regard to techniques for expressing breast milk and for storing it, those approved by the medical staff should be set down in writing and closely followed.

MILK MIXTURES. The formula for the milk mixture ordered by the physician for each infant should be in writing, and any changes should also be in writing.

The 24-hour supply of milk mixture should be stored in the milk room.

The bottles for each feeding, with sterile nipples and sterile caps on them, should be sent to the nursery from the milk room at the feeding hours.

Milk mixtures should *not* be poured into nursing bottles from a larger utensil in the nursery or in the workroom.

There should be provision for warming the bottles in the nursery unit.

Nipples should *not* be handled by the nurse who feeds the infants.

Used bottles, nipples, and caps should be returned to the milk room after each feeding.

DRINKING WATER. It is recommended that sterile water be given to normal infants between feedings at least twice a day; in very warm weather oftener.

Supplies

EQUIPMENT FOR SPECIAL TREATMENTS. It is essential that a suitable suction device, a supply of oxygen, and suitable apparatus for administering oxygen be always at hand.

It is recommended that special needles,

tubing, glassware, and other equipment suitable for use for newborn infants be kept in the workroom in sterile packages, ready for emergency use for infusions, transfusions, lumbar punctures, and so forth.

LINEN. Clean linen should be delivered to the nursery unit each morning in an amount to last 24 hours.

It is recommended that the supply of linen for each infant be prepared in the laundry in three packages: (1) diapers, (2) bed clothes, (3) clothing.

OIL. Fresh sterile oil should be supplied daily in small glass sterilized containers.

Cleaning Nursery Unit

No dry dusting or cleaning in a nursery unit should be allowed; walls, floors, and ceiling, as well as furniture and other equipment, should be washed. Maids should wear gowns, caps, and masks while cleaning.

Care of Soiled Linen

It is recommended:

That soiled diapers be placed in a special diaper can, separate from the hamper for soiled clothing and bed linen.

That all soiled linen be collected at least twice a day—preferably oftener.

That the diaper can and the soiled-linen hamper be put outside the nursery by the nurse so that the collector need not enter the nursery.

That diapers and other soiled linen be taken to the laundry without being removed from their respective containers.

That diapers and other soiled nursery linen should be washed separately from each other and from other hospital linen. Special care is needed in the washing so that the garments will remain soft and will be free from any substance that might irri-

tate the infant's skin, such as strong soap or chemical.

Rules for laundering—making up the packages, sterilizing (preferably by autoclave), and delivering them to the nursery—should be worked out with the medical, nursing, laundry, and administrative staffs of the hospital. (See also Supplies, p. 306.)

Records

It is recommended:

That there be a clinical record for the infant, separate from the mother's.

That the mother's hospital number be entered on the infant's record so that information pertinent to the infant's welfare will be available in regard to the circumstances of pregnancy, labor, and delivery.

That complete daily records of the infant be kept—medical and nursing.

Preparation for Discharge

Before she leaves the hospital the mother should be instructed in regard to the care of her infant, including maintenance of her breast-milk supply. For mothers who need such services, arrangements should be made with a public health nursing agency for early and continued instruction of the mother at home.

Consideration should be given to the home situation (including a visit to the home if necessary), in regard to such matters as:

The health of the other persons living in the home

Whether the mother will be able to care for the infant herself

Whether the housing arrangements are suitable for care of the infant

Whether the parents are financially able to provide proper food, clothing, and other essentials for the infant

If the home situation is unsuitable for

the infant, arrangements should be made with a family service agency or other agency to assist in preparing the home for the infant and to help in making necessary adjustments.

If, after discharge from the hospital, the infant is not to continue under the care of

the same physician who cared for him in the hospital, the family physician or a community agency should be notified that the infant is to be discharged, so as to insure continuous medical supervision for the infant, including supervision of diet and hygiene, and medical care.

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CHAPTER XII. X-RAY SERVICE

1. By Miniature X-ray Screening, the Chest Patrol Protects Both Patients and Hospital Employees, by *Fred Jenner Hodges, M.D.**

WE whose lifetime job it is to wage war against disease in all its intricate complexities have long been familiar with the importance of tuberculosis as one of the major enemies of human health and happiness. By dint of inspired cooperative effort, society has maintained an offensive which has greatly curtailed the effectiveness of this particular disease.

Improved methods of treatment, most spectacular in the case of patients whose lesions would have been considered entirely hopeless a dozen years ago, have scored brilliant, though with respect to the entire venture, local victories. It has been through the effective isolation of patients known to harbor the disease in transmissible form and the searching out of extremely early cases that the death toll from tuberculosis has been so gratifyingly reduced.

Case-finding, as the search for patients in whom tuberculosis has gained a foothold is called, has been carried out to a large extent by means of wholesale tuberculin testing and by the employment of mass x-ray surveys applied to groups of school children and the employees of various industries.

Beginning with the detection of individual cases of the disease by these methods, social workers have rounded up persons known to have been exposed by personal contact, thus enlarging the importance of every case discovered. X-ray surveying can be carried out with relative ease, and, especially since the advent of photofluorography, the cost cannot be con-

sidered prohibitive. Its practicability has been thoroughly tested by the armed forces which have applied it to the millions of men and women examined at the induction centers, and the U.S. Public Health Service is using it widely and has even greater plans in the making.

At tuberculosis sanatoria, where all persons admitted are known to have or at least suspected of having the disease, routine chest filming has for some time been in vogue. Borrowing from military procedure, the medical profession, in league with an aroused public at large, has employed methods of seeking out the activities of this public enemy closely akin to military intelligence, espionage, and patrol.

Strange as it seems when considered, general hospitals have not been quick to protect themselves in similar fashion. Present standardized admission procedures are not well adapted to the detection of tuberculosis among entering patients. This laxity plays directly into the hands of the tuberculosis forces; constitutes a soft spot in society's defenses against disease by unnecessarily exposing patients and hospital workers alike within the very edifice where the battle to maintain good health is being most earnestly waged.

It is idle to hope that persons with as yet unrecognized tuberculosis in transmissible form will not present themselves for admission at the doors of general hospitals. It is dangerous to assume that the true state of affairs will be disclosed in the

* Adapted from *Hospitals* 17:40-42, Nov. 1943.

course of general examination before serious spread of their disease has occurred.

Tuberculosis case-finding when applied to any group of people who are sufficiently conscious of illness to seek hospital care may well be expected to yield more in the way of positive findings than the same effort employed in blanket fashion among school children and employee groups.

At the University Hospital* the x-ray chest patrol was formally instituted as a routine procedure on July 1, 1941. For some time all staff members, professional and nonprofessional alike, had been regularly surveyed when appointed to service and at least yearly thereafter, and all university students had been subjected to chest x-ray examination upon matriculation.

A test run of fourteen complete clinic days, conducted in the hospital in 1935, had convinced everyone concerned that we could not afford to exclude the patient population and at the same time effect control of tuberculosis within the institution.

Through the generosity of the W. K. Kellogg Foundation, quarters and photofluorographic equipment were provided within the admitting division. Except for extremely sick persons who are transported immediately to their beds, all clinic and hospital patients are subjected to chest filming as a part of the admitting routine. In so far as it is possible, even the emergency patients are later transported to the units for filming.

At the time when this unit was being established, all of the photofluorographic apparatus being manufactured was being requisitioned for the Army and the Navy. Of necessity we were forced to adapt to our purpose a stock model 35 mm. camera equipped with an f. 1.5 lens.

Beset during the earlier months of operation with all manner of difficulties related to the choice of photographic mate-

rials, lack of experience with various types of processing solutions, the need of a fixed grid to improve exposure quality, and many others, we somehow managed to operate without serious interruption until these had been surmounted.

Day after day and week after week the chest patrol has scanned the parade of entering patients, ever alert for telltale signs of disease. The crew assigned to this patrol duty has been small: one technician to position patients, operate the apparatus and process the films; one radiologist to interpret films for about thirty minutes daily and to supervise the equipment and its operation; and one stenographer to compile and distribute the individual and consolidated reports. There has been much territory to cover. In two full years between July 1, 1941, and June 30, 1943, a total of 45,339 persons have stood momentarily before the fluorescent screen to permit the image of their chest to be photographed, and this many miniature chest films have been closely scrutinized by the observer on duty.

On the basis of his impression of these films patients have been assigned to three major categories: (a) if the miniature film showed no visible evidence of abnormality, (b) if observed deviations from normal were not considered clinically significant, and (c) if positive or even suspicious signs of important disease were observed.

The sole basis for classification was the story told by the film, the chief complaint, the past history, even the clinical division to which the patient was to be admitted being unknown to the observer. He reported signs of abnormality as he saw them without bias.

Over the two-year period, 1.5 per cent of the miniature films were of unsatisfactory

* University of Michigan, Ann Arbor.

quality. Many of these examinations were repeated giving a total group of patients upon which reports were rendered numbering 44,681. A full two-thirds of these were negative (67 per cent).

One-fourth of the patients examined were found to have detectable abnormalities considered to be without real significance (23 per cent). The remaining one-tenth (10 per cent), a total of 4,475 persons, were considered to have demonstrable signs of chest disease requiring further investigation.

For a variety of reasons the recommended standard x-ray examinations were not conducted in many instances. For instance, some of the patients, returning shortly to the care of their family physicians, preferred to have the work done at home. In other cases the chest lesion apprehended was already known to our staff. In some instances patients could not be convinced of the wisdom of the suggested move.

More than half the patients classified as (c) have been carefully re-examined, however, and confirmation of the suspected seriousness of the survey finding has followed in approximately 75 per cent, which is gratifying to the patrol observer, especially in view of the fact that he routinely includes in the (c) group all patients presenting suggestive as well as unequivocal signs of significant disease.

Because it is the express purpose of the x-ray patrol project to scan the entire incoming patient population of the clinic and the hospital for telltale signs of thoracic disease of all types, to point an accusing finger even upon reasonable suspicion, it is advisable for the radiologist assigned to patrol duty to develop an attitude toward miniature film reading which is quite foreign to his accustomed practices.

At high speed he must make a direct and reasonably reliable decision regarding the over-all status of every chest with due regard to the probable consequences of his pronouncement. In fairness to patients, the line between normalcy and serious abnormality must be drawn with reasonable accuracy. He must not alarm large numbers of patients without cause, and on the other hand he must not fail to report concern when the findings justify that feeling.

We do not feel that the miniature chest survey routine has in any sense supplanted standard methods of x-ray examination of the chest, but rather that it represents an observation post of great value in determining which individuals among the incoming patient population deserve or require to be subjected to thoroughgoing fluoroscopic and radiographic study.

There are too many loopholes in the x-ray chest patrol program to permit accurate computation of the incidence of active tuberculosis among the institution's incoming patients upon the basis of its records alone, desirable as that might be. Patrol activities are not directed toward this disease alone, and in any event are not diagnostic in nature.

It is true that an experienced roentgenologist may often feel confident that miniature film findings represent pulmonary tuberculosis—may even be able to judge the character and extent of the lesion—but to do so would be to risk errors that are far less apt to occur if he employs the well-tested facilities in his roentgen laboratory.

To be used as a basis for reliable incidence figures in the case of tuberculosis, each instance of obvious or suspected pulmonary lesion should of necessity be reviewed, not only from the roentgenological viewpoint, but by careful physical and laboratory examination as well. This de-

gree of perfection in following up chest patrol findings has not as yet been attained.

It is possible to formulate an estimate based upon a detailed analysis of follow-up x-ray findings in a group of 167 patients during a three-month period of our experience. During this time this many patients who had been designated as persons whose miniature admission films showed frank or suspicious evidence of pulmonary disease had been subjected to further study which had confirmed the existence of the reported lesion and verified its significance.

From the x-ray viewpoint some form of pulmonary tuberculosis was diagnosed (calcified scars excluded) in 56.8 per cent. In the remainder, nontuberculous inflammatory lesions, atelectases, primary and metastatic lesions, and pulmonary vascular congestion associated with cardiac failure were diagnosed.

If one were to assume that all patients reported to show lesions in the lung would follow this same distribution if carefully reviewed, some idea regarding the incidence of tuberculosis might be obtained. Before computing such figures, however, it would be necessary to take into account the fact that not all of the findings reported by the chest patrol are found to be significant when reexamined.

During a period of seven months it was found that 75 per cent of reexamined patients whose miniature films had been reported as positive for pulmonary lesion did in fact have significant pulmonary disease. The abnormalities in the remainder were not found to be of clinical significance.

In the case of patients where pulmonary lesions were suspected but not positively reported, only 45 per cent subsequently proved to be real and significant. Using the results of confirmatory examination in these limited groups of cases, we may attempt to estimate the number of patients

with tuberculous pulmonary lesions detected by the patrol procedure.

We must, of course, remember that our patrol is capable of overlooking some lesions later proved to have been present, but the occurrence of such oversight in so far as we have been able to test for it is not great.

In the year ending June 30, 1943, "questionable pulmonary lesion" was reported in the case of 802 persons. If our past experience were to hold good, 360 of these would prove on reexamination to have significant pulmonary disease.

During the same period pulmonary lesions were positively reported in 741 persons and experience would show that 555 were not only real but significant as well. In all we may expect that the survey has uncovered clinically significant disease of the lung in 815 persons or 4.1 per cent of the total examined during the year.

If the percentage of tuberculosis discovered in the three-month test period were to hold, 462 persons or 2.1 per cent of the year's grist could be expected to have pulmonary tuberculosis recognizable by our survey methods. Borrowing once more from our prior experience we may assume that of these, 184 would have the disease in unquestioned active form, a number representing 0.8 per cent of the total group surveyed.

If these computations seem idle because based upon far too many assumptions, they nevertheless have some value in maintaining the morale of the patrol workers. It is natural that they should desire to know the value of their efforts in terms of long-range results.

They need no statistical analyses to assure them of their accomplishments in numerous individual instances where the prompt reporting of widespread tuberculosis is discovered unexpectedly in patients

whose reason for coming to the hospital has been entirely unrelated to pulmonary status.

Interest in the daily work is enhanced by the knowledge that results so far have been instrumental in bringing to light a considerable number of dangerously infectious cases which might otherwise have been the source of crippling tuberculosis for a score of hospital workers and fellow-patients. Our patients have learned by word of mouth that chest survey service is an integral part of hospital routine at our institution and they seem anxious to be examined.

Our professional staff members rely to a very considerable extent upon this activity for valuable advance information concern-

ing all of their patients. The entire family of hospital workers looks upon the venture as a safeguard to its health.

Our hospital management knows full well that the patrol maintained in the admitting division is an excellent form of insurance against financial losses which attend the development of active tuberculosis among hospital employees.

By itself the x-ray chest patrol cannot stamp out tuberculosis. It can only serve warning to everyone concerned when the disease is recognized among the patients who are being admitted, but by promptly relaying its observations to those who are to be charged with the patient's care, the patrol serves very effectively as a first line of defense.

2. Equipment Needed for Routine Chest X-ray, by H. E. Hilleboe, M.D., and Russell H. Morgan, M.D.*

Soon the majority of hospitals and clinics of the United States probably will adopt the x-ray examination of the chest as a routine procedure, available to all patients receiving medical care. Experience gained at the University of Michigan Hospital,¹ at Grasslands Hospital, New York,² and at the University of Chicago Clinics³ indicates that routine chest x-ray provides valuable diagnostic benefits and often reveals tuberculosis and other chest disease when pathology is entirely unsuspected. Through such service, cardiac and skeletal abnormalities also are frequently detected at an early stage.

The procedure is quite feasible economically. The total cost of such examination, when mass radiographic methods are used, is small, comparable to that of the serologic test for syphilis.

The x-ray facilities needed by a hospital or clinic for the routine examination of its patients depend upon the number of per-

sons to be studied each day. In large institutions where the number of examinees exceeds 75 to 100, the procedure may be carried out most satisfactorily with a fully automatic photofluorograph employing either 35 mm. or 70 mm. unperforated roll film and equipped with a motor-driven camera and a photoelectric timing mechanism. Such a machine may be obtained from several x-ray manufacturers at a cost varying from \$7,500 to \$10,000.

Preferably, the unit should be located in a room adjacent to the admitting office of the hospital or clinic and convenient for

* Adapted from *Hospitals* 19:63-64, Nov. 1945.

¹ F. J. Hodges, Fluorographic examination of the chest as a routine hospital procedure, *Radiology* 38:453-461, April 1942.

² W. G. Childress, A. G. Debbie, and E. L. Harmon, Tuberculosis case finding by general hospitals, *J.A.M.A.* 122:1063-1065, Aug. 14, 1943.

³ R. G. Bloch and W. B. Tucker, The indispensability of routine x-ray examinations of the chest in a general clinic, *Am. Rev. Tuberc.* 50:405-417, Nov. 1944.

the patient. It should not be installed as a part of the existing department of radiology because of the excessive burden that would be placed on such facilities.

The installation should include an exposure room in which the examinations are made and several dressing cubicles for both male and female patients. The total floor space required usually approximates 600 square feet. Dark-room space should be provided for film processing. This room, however, need not be greater than 15 or 20 square feet because the equipment currently available for roll-film developing is compact and does not require the installation of elaborate apparatus. Indeed, a sink with hot and cold running water and shelves for storage of chemicals and film are the only basic fixtures required in addition to the actual processing equipment itself.

In institutions where the number of patients studied each day ranges from 25 to 100, the x-ray installation should also be located near the admitting offices and separated from the department of radiology. Such operating schedules are not heavy, and therefore the unit may dispense with many of the automatic features that are desirable when hundreds of people are to be examined daily. For example, hand-operated cameras that use 35 mm. or 70 mm. roll film or 4 by 5 inch cut film may be satisfactorily substituted for the more expensive motor-driven cameras. By taking advantage of this and other savings, it is possible to purchase a photofluorographic unit suitable for hospital installation at a cost of \$4,000 to \$6,000.

In smaller institutions where the daily case-load ranges from 10 to 30 persons the photofluorographic apparatus, in many instances, may be located in the existing department of radiology without causing inconvenience either to the patient or to

the radiologist and his technician. In such institutions the department of radiology is seldom far from the admitting office and therefore is accessible to the latter. Furthermore, the number of daily examinees is so small that radiological schedules need not be seriously disrupted by the burden of additional patients.

Routine chest x-ray of all patients within the department of radiology has the advantage of requiring no new x-ray generating equipment. Instead, existing equipment may be used conveniently with a simple photofluorographic stand and camera that cost approximately \$2,000. It appears that such apparatus, equipped with either hand-operated 35 mm. or 70 mm. roll-film cameras or 4 by 5 inch single-film cameras, will be available early in 1946. They will occupy a floor space approximately 2 feet wide by 3 feet long and may be placed in any location where the existing x-ray tube can be brought into alignment with the photofluorographic screen at a screen-tube distance of 36 to 40 inches.

Institutions in which the number of daily examinees is less than 15 to 20 should probably not plan to install small-film radiographic equipment. The operational schedules are small enough to permit the economical use of full-sized 14 by 17 inch films. The addition of expensive apparatus would be unwise and would have little practical value. The technical details of the operation of x-ray units may be found in a recent publication by Hilleboe and Morgan.⁴

It will be observed in the foregoing paragraphs that the recommendations have referred always to the number of daily examinations to be conducted, rather than to the number of beds in the institution. The

⁴ H. E. Hilleboe and R. H. Morgan, *Mass Radiography of the Chest*, Chicago, Year Book Publishers, 1945.

number of examinations is a proper index, because many hospitals and clinics will augment the number of persons normally admitted to their institutions by well persons who have been referred from nearby industrial plants or who reside in the neighboring community. The extent, therefore, to which the radiographic unit is used is not determined by the size of the institution.

Frequently questions are asked about the size of film (35 mm. or 70 mm. or 4 by 5 inch) which is most satisfactory for the routine examination of the chest. A recent well-controlled study,⁵ by means of which the several films were tested, indicates that from a screening viewpoint there is no significant advantage in any specific film size. In fact the results of this investigation, which will be published soon, reveal that the screening error of 35 mm. film is no greater than that of 14 by 17 inch films. This may seem incredible to some but apparently the size of the chest lesions is sufficiently large to permit their detection without difficulty, even in the smallest film.

Another question that is frequently asked concerns the advisability of using stereoscopy in small film chest radiography. In an effort to answer this question one of the authors⁶ recently participated in a study of several thousand stereoröntgenograms to determine the num-

ber of instances in which lesions would be undetected if single instead of stereoscopic films were made. The number was found to be insignificantly small—6 per 100,000 cases examined. Accordingly, it may be stated that stereoscopy is of little value in the screening type of examination. If the day should come when the small film chest examination is used not only to detect pathology but also to identify its nature, the status of stereoscopy doubtless will change. Meanwhile its use is impracticable.

In conclusion it should be stated that the routine chest x-ray of all hospital admissions has many specific and demonstrable advantages: (1) It discovers infectious and active tuberculosis in patients who enter for other services such as surgery or obstetrics. (2) Tuberculosis is found in an early stage when the prognosis is good. (3) It discovers symptomless nontuberculous conditions that may affect the treatment of the patient. (4) It may shorten the stay of patients with hidden tuberculosis that tends to retard recovery from other diseases. (5) It provides protection of hospital personnel, especially nurses, against infection. (6) It increases the diagnostic efficiency of the hospital staff.

⁵ W. E. Chamberlain, personal communication.

⁶ I. Lewis and R. H. Morgan, The value of stereoscopy in mass radiography of the chest, *Radiology* 46:171-172, Feb. 1946.

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CHAPTER XIII. OUTPATIENT DEPARTMENT

1. The Outpatient Department in the Small Hospital, *by John T. Morrison, M.D.**

THE outpatient department in the small institution is a vital factor in promoting the health of the community. It stands, in fact, at the crossroad of rural medical practice for it is the meeting place of curative medicine as practiced by individual physicians whether in offices or in hospitals, and preventive medicine as practiced by the physician and by public health authorities. It is the merging of these two which, to my mind, gives the outpatient department its greatest value in the small hospital and makes possible a complete, well-rounded service to the community.

The term "small hospital" implies a location in a relatively small or widely dispersed community, in many cases a rural area, and, generally speaking, is applied to an institution of less than one hundred beds. For purposes of this discussion, I should like to limit consideration to the fifty-bed hospital since a unit of this size is large enough to provide all the essential services, diagnostic and curative, and yet not too large for the needs of a population within a reasonable radius.

Let us say that this hypothetical fifty-bed hospital serves some 60,000 or 70,000 people scattered throughout an area within a radius of twenty-five miles from the hospital, distinctly rural in character with few industries and few centers of concentrated population. Such a community, experience has shown, can be adequately served by the fifty-bed hospital and can adequately support it without strain. The hospital can have a fully equipped clinical laboratory in charge of a technician and supervised by a part-time pathologist. It can have an ade-

quately equipped x-ray department also in charge of a technician with supervision from a part-time roentgenologist. It can be equipped for other more highly technical diagnostic and therapeutic procedures.

The average hospital of this size in a community of this kind—and there are many to be found in these United States—can, with strict attention to conservation of space and to efficiency of management, furnish its services at rates within the reach of the majority of the population. It may reasonably expect, however, that approximately 25 per cent of its service must be rendered to patients unable to pay either the hospital charge or the physician's fee involved. It will find too, that there is in the community a certain percentage of families who are unable to pay for medical service even in their own homes when hospitalization is not necessary. Logically, a community in setting up a hospital acknowledges its obligation to both these groups. It assumes responsibility for the hospital care of patients unable to pay, and for technical and diagnostic service to those patients, as its contribution to the medical care so freely furnished by the physicians. For those who need not be hospitalized it will make provision through the establishment of an outpatient department, under the direction of a supervisor, and thus save much of the physicians' time and make its technical services equally available to all groups of the population.

Such an outpatient department has real value not only for the physician and the patient but for the community as a whole,

* Adapted from *Hospitals* 17:25-28, Feb. 1943.

for it offers a meeting place for all of those interested in the health of the community and an opportunity for coordination of health activities. The hospital has set aside a portion of its space for the outpatient department, furnished examining rooms, record room, and office as well as equipment for treatments, and has put a supervisor in charge; it has appointed certain physicians from the area to attend these patients on a regular schedule, thus distributing the load of the medical care. At the same time, it has made arrangements with doctors, welfare workers, and public health authorities to direct to the department for ambulatory care all patients unable to pay a physician. The department is, therefore, in one sense an extension of the facilities for the practice of curative medicine; which is the major function of the hospital and of the practicing physicians treating the average patient in the hospital. It is more than that, however, for through arrangements made for the use of its space and facilities by the public health authorities and through plans made with the latter to work on various health problems in the community, the department makes a real contribution to preventive medicine as well as to curative medicine. The outpatient department, in other words, is the meeting point or the crossroads for the two types of medical service in the district it serves.

In order to illustrate the actual working of an outpatient department in all of its phases (and they are many), I have drawn from experience in various community hospitals with which I have had contact. I should like to take you first to a fifty-bed hospital located in the South. There are a number of patients in a large waiting room, some of them adults, some children; and in an adjoining room there are several others. A nurse with a kindly face and manner approaches one of the

mothers, calling her by her first name, and asks whether she has brought all of her children to the clinic. On receiving an affirmative answer she takes the whole brood into her office and with friendly questioning prepares the way for their examination, at the same time entering the necessary information on a record form. She then arranges for laboratory examinations and x-ray of the chest of each one of the group, as is prescribed by the physician of the department. This we learn is a family in which the father recently was found to have tuberculosis. They have come to the hospital on referral by a nurse from the public health department for a check-up to determine whether there has been any spread of the father's infection. When the physician comes in he is the local doctor who has for some time had a particular interest in tuberculosis and has taken postgraduate courses to brush up his knowledge of this disease. He is introduced to the family and proceeds to examine them, referring to the laboratory and x-ray results. Fortunately, only one child has a suspicious lesion. The mother is asked to bring him again to the clinic at a later date for a check-up, and at the same time learns that her husband's lesion is small, and that by consistent pneumothorax treatment in the outpatient department, he can satisfactorily be treated at home without the necessity of going to a sanatorium.

Let us analyze what this one clinic visit has meant. The outpatient department has served as a doctor's office for this group of patients unable to pay the physician and they have received the same courteous treatment as in his office. The department supervisor has made them welcome to the clinic and has respected them as individuals, even learning and using their first names. They know that they will receive every consideration. The original sugges-

tion that the patient come to the hospital for his examination was made by the family physician, who in making this referral has conserved his own time and secured for the patient the best available diagnostic services. A physician especially interested in tuberculosis has had his interest sharpened by being able to do a well-rounded job of treatment for the patient and supervision of the family such as he could not have done in his private practice.

In addition to the actual care of the patient from the curative standpoint, he has protected the community through the follow-up of the patient's family, supplementing the work of the public health department, and releasing for other phases of public health the time of the personnel of the public health department which otherwise would have had to be spent on the examination of individual patients. From the patient's standpoint he has been able to secure adequate treatment in his own home community and has the assurance that his family is being watched and cared for. The outpatient department has been able to render a more complete service by reason of the cooperation received from the public health nurses who had previously visited the family, had brought them to the hospital, and will make the follow-up visits. In brief, the outpatient department of this hospital, functioning with the aid of nurses and doctors from both the hospital and the public health department, has made itself a really integral part of the health service of the community.

Come with me now to another hospital. Four patients are in the outpatient department waiting room. In a small room to one side is a fifth patient, surrounded by a group of obviously interested physicians. One, now busy examining the patient, is a visiting internist who has come to the hos-

pital at the invitation of the staff as leader of an institute, not for a series of lectures but for numerous sessions of clinical demonstrations and consultations. The other five men of the group are local physicians, one of them the public health officer, all observing the examination and discussing it with the visiting specialist. One of them, a staff member of the outpatient department, has referred this patient to the internist for the institute because he was puzzled regarding certain symptoms and because he realized that the condition to be met provided good teaching material. In a few moments, the whole group retires to a nearby room to discuss the condition in the light of new factors brought out by the examination, to pool their opinions, and to reach a joint conclusion.

The other patients waiting in the outer room are also to be seen by the internist. Two are private patients and two have been referred from the clinic. Each represents a problem in diagnosis and therapy on which the staff desires the benefit of other professional experience. Thus, selected patients in this community are given the benefit of a consultation they could not otherwise have secured. The staff physicians have had the stimulus of a group discussion and the habit of consultation for the exchange of experience has been established. Here then we have seen in action an educational process, made possible by this outpatient department, which will leave its mark in a much better standard of practice and prove of definite value to the community as a whole.

In the next outpatient department we visit there is a scene of considerable activity. There are twenty-five or thirty patients in the waiting room and a constant flow to the laboratory and x-ray departments and to the examining room. The four physicians working in the clinic today meet in

an anteroom after each patient has been examined to discuss the problem presented. Someone may suggest an additional laboratory examination, and this suggestion is passed to the nurse waiting outside the door. Others present varying opinions, all participating with considerable zest, for to them the outpatient department offers a real opportunity, enabling them to care for many more patients than would be possible in their private offices and to see a wider variety of clinical conditions. These four are assigned from the staff for a three-month period in charge of the two clinics held weekly. Formerly, they were, in effect, competitors, but there is nothing of the competitive spirit evident in their attitude today, a fact which in itself increases the confidence of the patients in the quality of the medical care they receive.

No one who has seen outpatient departments of this kind in action can question their value and that value is gradually increasing today as the young physicians are drawn into military service and it becomes more and more difficult for those who are left to meet the demands upon them. To an increasing extent it becomes important that both for conservation of their own time and for the best service to their patients they have available for their use facilities of a well-operated outpatient department. In fact, it is not inconceivable that in some communities the physicians may want to extend the principle of the outpatient department into their practice with private patients in order to conserve their time and energy. When this happens, the hospital through its outpatient department will, I am sure, plan with them for this service.

What do we mean by a well-operated department? We have spoken of the physical set-up; we have observed in three se-

lected institutions types of activity which make for good service. Of basic importance, however, is the establishment of standards governing the quality of the service. The hospital superintendent and the supervisor of the outpatient department have responsibility only for the details of the department's organization, its clerical work, its arrangement for the flow of patients, and for the use of technical services. It is the physicians who must take the responsibility for setting standards of medical service. I recall a recent incident in one outpatient department where a patient had been treated for a week for stomatitis, diagnosed as mercurial stomatitis because he was also under treatment for venereal infection. No smears had been made from the membranous material in his mouth, but when this was finally done a Vincent's infection was discovered, which should have been receiving quite different treatment. Such an incident could not have happened in a clinic operating under minimum standards requiring smears or cultures for specific conditions.

Minimum standards should specify the information to be included in the clinical record, the diagnoses for which confirmation by laboratory tests or x-ray should be shown, and the fundamentals of treatment on which the physicians in charge agree. Clinical records may be kept brief but should yield sufficient information for periodic study and review, and such review should be made either by the physicians or by the record librarian for submission to the staff. The best method to be followed in preparing a set of standards is for the physicians in the outpatient department to work out for each of the major disease conditions likely to be seen, a specific minimum for diagnostic study and for treatment. Other less common conditions can then be considered as they appear

until, with the accumulation of experience, the standards become reasonably complete. The periodic review of work is a necessary part of the efficient application of these standards in order that, through the pool of the physicians' day-to-day experience, the standards are kept alive and up-to-date.

It is impossible in a brief article to do full justice to the importance of the outpatient department in the small hospital. Standing at the crossroads where curative

and preventive medicine meet, it provides a common ground for doctors, nurses, and administrators, enabling them to keep their finger on the health pulse of the community and to work jointly, with economy of effort and resources, for the best service to the community. To do this effectively, however, the department must have a good administration, sound standards set by the medical staff, and, above all, their close cooperation in insuring the maintenance of those standards.

2. Diagnostic Clinics—Inpatient and Outpatient, *by Frank E. Wing**

THE newer advances in medicine have placed the modern hospital at a decided advantage over the private office, as a means for the study of unusual and obscure conditions contributory to organic and functional disease. This is true for the double reason that the well-organized hospital not only possesses the variety of technical equipment necessary for the scientific study of disease, too expensive for the average practitioner, but it is also able to focus upon the individual patient the professional skill of a group of specialists.

It is said that the general practitioner can satisfactorily care for 80 to 90 per cent of his patients without the aid of a specialist. On the other hand, it is also said that 80 to 90 per cent of all illness, exclusive of the more serious neuroses, is either self-limited, relatively easily managed, or unresponsive to treatment. It is this 10 or 20 per cent of patients seen in private practice, presenting obscure or not well-understood symptoms for whom we have particular concern in the presentation of this paper. It is for the study of this group that the general practitioner is at a disadvantage when, as is so often the case, he has neither the professional skill nor the necessary equipment to make an adequate medi-

cal diagnosis in his own office, nor has access to a hospital in which he can direct the necessary studies. He is at a still further disadvantage if he happens to be practicing in a community in which there is no hospital sufficiently equipped for the purpose.

When such a situation arises the general practitioner frequently finds himself in a dilemma. His desire for professional help is dampened on the one hand by fear that he may be found wrong in his own diagnosis and hence fall in the estimation of his patient, and on the other hand by the fear that he will lose the patient if he refers him to another physician or to a hospital.

In recent years there has been a growing tendency on the part of hospitals to recognize this situation and to take steps to improve it by making diagnostic and consultation services available to general practitioners without assuming control of the patients sent in for study.

In 1918 the Boston Dispensary established a diagnostic or health clinic to which patients were referred by their family doctor, or were received without referral for general physical examination including, in addition to that of the internist, a routine examination of eyes, ears,

* Adapted from *Hospitals* 14:55-59, Jan. 1940.

nose, throat and teeth, laboratory examination of urine and blood, including serology, with consultation by other specialists when necessary. This examination is open to persons of moderate means who cannot or would not go to a specialist in diagnosis, at the nominal fee of \$7.50, with extra charge for x-ray and special laboratory examinations. No treatment is given in connection with this examination, but when it is completed the internist reviews the findings with the patient and advises him to secure treatment if necessary. If referred by his physician a complete report with recommendations is sent at the conclusion of the examination.

While the main purpose of the health clinic is a periodic check-up with the attendant possibilities of early diagnosis, we find that many physicians would continue to treat their patients privately with more assurance to themselves and to their patients if there were available to them facilities for specialized consultations, or diagnostic procedures, through which they might corroborate a tentative diagnosis already made, or secure diagnostic information which they themselves have not the skill or the facilities to supply. To many of their patients consultation services of specialists in private practice are out of reach because of the high cost. Here lies the opportunity of the hospital, through its outpatient department, to assist the general practitioner by supplying him the information which he desires without insisting upon the traditional practice requiring him to relinquish his patient. To such as in the judgment of the family physician are entitled to lower rates than charged by specialists in private practice, the Boston Dispensary is offering a single department consultation service at a charge of \$5.00.

Patients are received by appointment

and consultation service only is furnished; no treatment is given. The report, with recommendations, is sent to the referring physician. If another special consultation is recommended this is also arranged upon payment of an additional fee, and only at the request or with the approval of the referring physician. In this way we are attempting to render a service to the family physician without requiring him to discharge his patient to outpatient care. The consultant receives no fee but he in turn is in line to benefit should the referring physician, after receipt of the recommendations, decide to refer the patient to him for treatment in his particular specialty.

While specialized outpatient diagnostic procedure and consultations are probably adequate for many patients whose general symptoms are sufficiently well understood, there remains a more important and perhaps larger group who can be thoroughly studied only over a period of three or four days while in bed and under professional observation and control. It was to meet this situation and to serve as a focal point in a broad program for the better distribution of medical care throughout New England that the idea of a diagnostic hospital at the Boston Dispensary was conceived. The Joseph H. Pratt Diagnostic Hospital is an example of the farsighted humanitarianism of William Bingham, II, who, through the Bingham Associates Fund, of which Dr. George B. Farnsworth is president, has established the hospital. Its program, begun by Dr. Joseph H. Pratt, for whom the hospital is named, and further developed and extended by Dr. Samuel H. Proger, medical director, is three-fold: diagnostic aid, hospital extension services, and postgraduate education. It is in elaboration of the manner in which the hospital functions to offer diag-

nostic aid that the balance of this paper is devoted.

At this point it should be said that the growth of the idea has been going on for twelve years. Its inception dates back to 1926 when Dr. Pratt and his associates in the medical clinic of the Dispensary, which had no inpatient service, felt keenly the need of a few beds in which to hospitalize their difficult cases in order to facilitate the establishment of diagnosis. In response to this need, the Board of Managers placed a small ward of six beds at the disposal of the medical clinic for the short-time study of cases. The usefulness of these beds for case study was at once demonstrated with the result that when the New England Medical Center building was constructed in 1930 for the common use of the Boston Dispensary, the Boston Floating Hospital, and the Tufts College Medical School, the Bingham Associates Fund furnished and equipped, on one of the floors, a twenty-bed diagnostic hospital with male and female wards and private rooms, placing the hospital at the disposal of the medical department for the study of patients referred by the clinic and the district service, and for private patients referred by members of the dispensary staff. Shortly thereafter, this privilege was extended to non-staff members who were graduates of Tufts Medical School and later to practicing physicians throughout Massachusetts, Maine, and the rest of New England. At the same time the Bingham Associates program of graduate education and hospital extension, to which reference has already been made, was initiated by Dr. Pratt.

By the end of 1936 the demands on the Diagnostic Hospital were greater than could be supplied by twenty beds. The manner of offering the service on a small scale had proved its efficiency and served

as a forerunner of the enlarged and independent plant which we have today.

The Joseph H. Pratt Diagnostic Hospital is prepared to offer facilities to physicians of New England for the special study of diagnostic problems. No patient is admitted unless he is sent by a physician to whose care the patient is discharged. The referring physician maintains complete control over the disposal of the patient at all times. The Diagnostic Hospital is unique in that it does not receive referred patients for treatment, and is, therefore, not in competition with any general hospital.

The policies of the Diagnostic Hospital are designed to make it possible for physicians to obtain for their patients the fullest benefit that can be made available in a medical center like Boston, without in any way interfering with the referred patients' physician-patient relationship. For this reason all correspondence is entirely with the physician and subsequent admission can be arranged only through him. A complete report of findings, with diagnosis and recommendations, is sent to the referring physician and as little information as possible is divulged to the patient. The patient can never become privately attached to the institution.

The building, 145 feet by 50 feet, constructed and equipped at a cost, including land, of approximately \$700,000, comprises six stories and basement. In addition to the usual service and utility facilities, the building contains on the ground floor a lecture hall for clinical conferences and demonstrations. On the first floor are reception halls, administrative offices, medical library, conference rooms, and a suite of private offices for six full-time members of the permanent senior staff. The second floor contains complete diagnostic x-ray facilities; laboratories for routine work,

allergy, bacteriology, chemistry, pathology, and research; metabolism and electrocardiographic laboratories, together with a minor operating suite completely equipped for all technical diagnostic procedures such as biopsies, endoscopies, etc. The third floor is unfinished and reserved for the use of the Tufts College Medical School with which the Diagnostic Hospital is affiliated in the New England Medical Center. On the fourth floor are twenty-nine beds for ward and semi-private patients, arranged two, three, four, and five beds to the room. Beds are separated by metal partitions or curtains on the cubicle plan. The fifth floor contains twenty beds for private and semiprivate patients, both single and two beds to the room. The sixth floor is sumptuously equipped with fourteen private rooms, each with a private toilet and bath.

The building is connected by tunnel with the Boston Dispensary, the Boston Floating Hospital, and the central service facilities of the New England Medical Center.

Unquestionably, the most important diagnostic aid is a well-trained diagnostician. This an institution especially devoted to diagnostic work is best able to supply. The Joseph H. Pratt Diagnostic Hospital has a large and especially trained personnel, headed by a chief and associate chief of staff, medical director, and two senior residents, all salaried and full-time men; four junior residents, picked for outstanding ability, with at least two years' internship in the leading medical services of the country, together with a consulting staff consisting of the chiefs of the departments of the Boston Dispensary, heads of the teaching departments at Tufts College Medical School, and, in addition, leading physicians connected with other institutions and of

outstanding reputation in their special fields.

The Diagnostic Hospital is also well equipped with technical personnel, competent to handle with skill all problems in x-ray diagnosis, metabolism, electrocardiography, as well as all specialized chemical, pathological, and bacteriological laboratory technique.

Arrangements for admission must be made in advance and patients are only admitted at the request of their private physician. Thanks to the generosity of the donor, which makes a limited amount of free work possible, room, board, and nursing care are arranged in accommodations ranging from ward beds at \$3.50 to private rooms at \$12.00 per day. In addition to the charge for room, board, and nursing care, a flat charge of \$5.00 is made for the routine laboratory examinations for ward patients, \$7.50 for semiprivate patients, and \$10.00 for patients in private rooms. Other laboratory studies, together with x-rays, basal metabolisms, electrocardiograms, and biopsies, are charged extra. The patient pays no professional fee to any member of the staff or his physician. A diagnostic service fee of \$5.00, \$10.00, or \$15.00 is paid direct to the hospital in lieu of a professional fee, and includes payment for a written report containing summarized work-up of the case, diagnosis, and recommendations. Consultation fees of \$5.00 to \$10.00 are charged to patients in private or semiprivate rooms when the services of specialists are required.

The time required for a complete diagnostic work-up of the average case is three to five days. On admission, patients are assigned in rotation to the junior residents, who are responsible for taking the case histories and the starting of all indicated laboratory procedures. Studies of male patients are supervised by one and of female

patients by the other of two senior residents. History and progress notes are dictated to the ediphone, and these together with laboratory and x-ray reports are transcribed by medical stenographers in the record room. Ward rounds, with the chiefs of service, are held daily and consultations are ordered wherever necessary. Findings are summarized by the medical director in conjunction with the two senior residents, and the report with the medical recommendations goes out to the referring physician over the name of the medical director. If the patient raises questions, as frequently happens, he is informed that his own physician will receive all the information and recommendations that the Diagnostic Hospital has to offer, and is told that all questions must be referred to this physician.

If the Diagnostic Hospital diagnosis and recommendations differ from those already given the patient by the referring physician, the latter is free to explain the difference as he sees fit. Essentially, the desire is to eliminate any possible factor which may influence a physician to wait until it is too late for a consultation, where he might otherwise have sought aid earlier. The responsibility for putting to good use the information which the Diagnostic Hospital provides, falls upon the physician. The application of such information, which involves close supervision and prolonged care, must be made as free from difficulties as possible if the patient is to receive the maximum benefit. It is the purpose of the Diagnostic Hospital to help the patient through his physician, and to improve the practice of medicine in small communities by offering help to their physicians.

It is obvious that diagnostic services of the type herein described are expensive. While very little bedside care is necessary,

the technical procedures used on nearly every patient require a high standard of nursing care, and the frequency with which they are repeated calls for a quota of graduate nurses relatively as large as in a general hospital. The rapid turnover of patients calls for a large amount and variety of laboratory work without the lull that follows the normal postoperative recovery of the surgical case or the convalescence of the medical case.

The program of postgraduate education as well as the maintenance of a suite of private offices for members of the full-time senior staff, to which brief reference has already been made, also entails additional expense. It is too early to predict what will be the per diem operating cost, as the hospital is still going through the adjustments which every new hospital experiences during the first year or two of its operation. It has been necessary to maintain a somewhat flexible personnel and at the same time be prepared to meet the requirements of a fluctuating clientele until a stability of population can be established.

The present capacity of the Diagnostic Hospital is sixty-three beds. The hospital opened on January 15, 1939, with 15 patients and gradually increased in number to about 35 patients during June and July. There were 726 admissions during the first six months of 1939. These were about evenly divided as to sex, there being 330 male, and 396 female patients; 321 or nearly half of the entire group were between the ages of forty-one and sixty, with 254 between twenty-one and forty years; leaving only 48 under twenty-one, and 103 over sixty years of age. By residence, 69 patients came from Boston proper, 302 from the metropolitan area outside Boston, 209 from other parts of Massachusetts, 65 from Maine, 41 from New Hampshire, 10 from Connecticut, 8

from Rhode Island, and 22 from other parts of the country.

The fact that so few came from Boston indicates already that the Diagnostic Hospital is reaching people in the areas for which it was intended. From the total number received, 298 or 44 per cent were referred by doctors who were not members

charged back to their doctors for treatment, except in an acute disease which required immediate service. The group sent in by the staff doctors comprised two types: those in whom the diagnosis had already been established and who came in for treatment, and patients sent in for diagnostic studies, which were carried out

ANALYSIS OF THE FINDINGS IN SOME OF THE LARGER GROUPS

Diagnosis	In 298 patients referred by outside doctors	In 247 patients referred by staff doctors	In 89 patients referred by Boston Dispensary	Total
Arthritis of different types	22	11	3	36
Anemias of different types	38	21	8	67
Arteriosclerosis, general	15	4	1	20
Bronchial asthma	9	4	4	17
Cholelithiasis and cholecystitis	12	4	—	16
Colitis, ulcerative	7	2	—	9
Diabetes mellitus	11	9	4	24
Hypertensive, cardio-vascular disease	25	13	5	43
Malignant tumors (carcinoma, etc.)	7	2	4	13
Obesity	24	23	9	56
Peptic ulcer	9	7	2	18
Psychoneurosis	87	29	2	118

of the Boston Dispensary staff; 247 or 34 per cent were referred by members of the Dispensary outpatient staff, which numbers some 200 physicians and surgeons. At present, until excluded by demand for purely diagnostic cases, two exceptions are made to the policy of admission for diagnosis only: private patients of the full-time hospital staff, and a limited number of patients for special procedures, treatment, or research referred by clinics or by staff doctors. In this group are the remaining 181 cases, including 92 patients sent in by the skin clinic specifically for lumbar puncture without any other work-up.

The outside cases were always dis-

in the same manner as for the group referred by outside doctors.

Analysis of the findings reveals a grand total of 1,085 major diagnoses, giving an average of about two per patient. Included in the total were 299 different diagnoses.

Comment should perhaps be made regarding the large number of times the diagnosis of psychoneurosis was made. According to the member of the house staff who analyzed the cases, this was at times a secondary diagnosis, but in no case was it made without good evidence of some emotional factor. In other words, it was not merely a diagnosis by exclusion. These cases frequently required as many x-ray ex-

aminations and laboratory procedures as did the group showing organic conditions, because the referring physician wished to have the negative findings to aid him in his psychotherapy.

There was also a small number of cases which required surgery. These were either referred back to the local doctor or in fourteen instances transferred to another Boston hospital at his request. As a rule, the referring doctor was very glad to have this done, because services for surgery were so

limited in the smaller towns and cities from which the patient came.

We believe that our experience in the operation of diagnostic clinics and a diagnostic hospital, as described above, has demonstrated the value of this particular service which the medical institution can render the physician who wants to make use of every available resource in prescribing for his patient, if he can be assured that he does not lose control of the patient in the process.

3. The Follow-up Clinic, *by John B. Pastore, M.D.**

THE FOLLOW-UP clinic, or rather the function and service performed in that clinic, is an important part of any outpatient department. Such clinics are found most frequently in surgical departments and only rarely in the field of internal medicine. This would seem to indicate that the surgeon had, at least in the past, considered his case cured with the completion of a "successful" operation. He later acknowledged that survival from an operation did not necessarily prognosticate a cure and, consequently, a program to determine the end results was established. Moreover, the surgeon's concept of the dispensary is somewhat different from the internist's. He considers it as a "feeder" for the surgical service. Therefore, it is felt that the operating surgeon is the one most interested in the results of therapy rather than the physician who originally advised the admission for operative procedure. In other words, their surgical clinics are comparable to the internists who refer their private cases to surgeons for operation. Certainly no surgeon would want to be considered solely as "the technician" in the case, but one must admit that at least in the larger clinics this concept approaches

reality. The medical clinics, on the other hand, consider the entire course of the patient's welfare as their own responsibility before and after treatment. They may, of course, refer certain cases to specialty clinics, but from then on that clinic follows the patient completely.

With that as a background, let us analyze the follow-up clinic. In the first place many of them have been poorly and unnecessarily named. The patient is told to return to the "tumor clinic," the "radiation clinic," the "toxemia clinic," and unfortunately in some instances even to the "cancer clinic." Obviously, many of the patients do not welcome such a classification according to disease, and naturally are not as cooperative as one would expect. It would seem that at least one of the already large number of clinics designated by departmental specialties should be able to offer a haven to the postoperative patient. Why not refer them back to the clinic from which they were admitted, or to the Wednesday or Thursday surgical clinic which would be interested in such cases? Naturally it would be better if they could be followed by the physicians who had ad-

* Adapted from *Hospitals* 17:38-39, Mar. 1943.

vised admission for surgery as well as by the operating surgeon. This will be discussed a little later since it brings us to the question of the purpose of the follow-up clinic.

The follow-up clinic has a threefold purpose:

1. *For the patient.* It offers an opportunity to detect at an early date any continued abnormalities or spread of disease, as in cases of cancer or toxemia and other complications of pregnancy. Further treatment may be indicated or, in the case of pregnancy, interruption or prevention against future pregnancies may be necessary. Certainly no one would deny that this is a worthy and necessary purpose for the welfare of the patient.

2. *For the operating surgeon.* It gives him an opportunity to evaluate the mechanical or physical results obtained at operation. This is particularly important in plastic operations such as for hernia and many of the gynecological operations. It is only in this way that one comes to appreciate the failings in one's own operative technique. To further this cause many hospitals conduct a Sunday morning follow-up clinic which not only permits busy surgeons to follow their cases, but also avoids interruption of work for patients.

3. *For clinical investigation and research.* Various forms of medical and surgical treatments can be studied in these clinics by those particularly interested in the subject. The study can be concentrated in these clinics and discontinued when the results are obtained.

The present practice in many hospitals is to have a separate and distinct department for following such cases. Such departments usually resolve themselves into a full-time paid secretary plus the outpatient clinic. It performs clerical duties which duplicate procedures well estab-

lished in practically all outpatient departments. As a result, it often becomes a statistical department whose reports usually indicate what percentage of patients returned to the clinic, how many telephone calls were made, and how many letters or cards were mailed. Naturally, each year the numbers increase and the department grows to an expensive budget. Cases are followed unnecessarily for years, to the inconvenience of both the patients who do not need to return and those who require attention but receive little because of the size of the clinic. Every hospital has records for patients being followed for ten or fifteen years following an appendectomy or hemorrhoidectomy.

Moreover, such departments frequently develop their own records with the result that important findings are not incorporated into the patient's records, a practice which is deplorable because the information is not available to all those who care for the patient. This practice sometimes occurs in clinics not directly associated with follow-up care. Also, notes are sometimes included in the record which are hearsay and not findings obtained from examination of or consultation with the patient. This practice has developed mostly from the follow-up of cancer patients where it has been felt that the span of life or the so-called "five-year cure" is the important criterion for successful treatment. Consequently, notes are included which indicate whether the patient is alive or died on such and such a date. Such notations can frequently be erroneous as is illustrated by a recent experience of ours. One of our neighboring hospitals requested an abstract of one of our former patients. The abstract, including information contained in the follow-up notes that the patient had died in another hospital on a certain day, was forwarded. No attempt

had been made to obtain confirmation from that hospital. Much to our surprise the patient walked into our office a few days later to announce that he was very much alive and that our records were obviously incorrect. I simply mention this as an illustration of the type of information that may be obtained by persons whose sole interest is to make a good record.

Moreover, the routine for these special follow-up clinics calls for a certain number of visits at specified intervals regardless of whether the physician originally interested in the case is still attending the clinic or not. Consequently, doctors are forced to see patients for whose appointments they are not responsible. Also, many patients who were originally sent to the hospital by an outside physician are followed instead of being returned to their own physician. Such a practice will not maintain the good will of the physicians practicing in the community.

What should we consider an ideal set-up for follow-up studies?

1. No special department is necessary. Any outpatient department which has an appointment system is automatically a follow-up clinic since broken appointments can be ascertained and followed. Even in clinics without an appointment system, a limited form can be established by noting names and dates of appointments of patients requiring care.

2. All information should be incorporated in the patient's record. The unit history system is actually a follow-up record and eliminates the necessity for individual records.

3. Appointments should be given only upon the request of the examining physician. In this way useless return visits can be eliminated.

4. Wherever possible the clinic should be part of a general clinic with physicians

associated with the case in attendance. Certainly it is not necessary to designate these clinics by the names of specific disease categories.

5. Sunday clinics for immediate postoperative follow-up are a necessary part of good medical care. Each operating surgeon can thus determine for himself the end results of his operative procedure. This should not continue beyond the period necessary for this check-up.

These, I believe, are the cardinal requisites for the successful follow-up study and care of a patient. In practice, it would follow a pattern similar to this. The patient is first admitted, let us say, for operation. At the time of discharge, an appointment is given to him by the head nurse for a Sunday clinic attended by his operating surgeon. At that examination, if end results are not yet available, a return appointment is given to see the same physician. If the operative results are satisfactory the patient is discharged from that clinic and given an appointment for the general clinic for further care and check-up. Further appointments will depend on the physician's examination. The record room should be able at any time to furnish cases of certain diseases or operation for any special study. The information is self-contained in the patient's record, and every physician in contact with the case can avail himself of this information.

In conclusion, therefore, it can be said that a follow-up of all patients is an essential function of any outpatient department. It does not require a special set-up since the usual procedures for the outpatient department can be adapted to this service. A well-organized outpatient department and a well-run record room can provide the mechanics for a good service. Although I feel that a simplified system should be used at all times, it becomes doubly im-

portant in these days that all unnecessary clinics and departments be eliminated if the outpatient department is to remain a functioning unit.

4. Outpatient Care for the Needy; Policies That Should Govern the Use of Tax Funds for the Care in Nongovernmental Outpatient Departments of Patients Who Are Public Responsibilities, *by the Joint Committee of the American Hospital Association and the American Public Welfare Association**

THE American Hospital Association and the American Public Welfare Association some time ago officially adopted a statement of policies and principles that should govern payment from tax funds to nongovernmental hospitals for inpatient (bed) care of the needy. This statement was prepared by the Joint Committee of the two associations.¹

The committee proceeded on the general principle that "public funds may be used for the care of the needy sick in hospitals as appropriately as for general relief, without in either case displacing nongovernmental hospitals and relief agencies from their charitable functions."²

It was recognized "that the use of tax funds to pay voluntary hospitals for the care of the needy is a widespread and, under some local conditions, a reasonable policy."³

It was taken for granted as a sound principle of public policy that, in so far as governmental facilities are available, public funds should be expended primarily in public institutions.

The statement concerning hospital care for the needy appeared to meet an urgent need for clarification of the policies and principles involved. The reorganization of a number of community plans for payment of tax funds to nongovernmental hospitals has been based on the principles of that statement.⁴

The promulgation of our former statement gave rise to a demand, from both public officials and hospital administrators,

for a similar formulation concerning payment from tax funds to nongovernmental institutions for outpatient service. It was argued that there is no difference in principle between payment for outpatient and inpatient service; and that a very large proportion of outpatients are recipients of public assistance.

The Joint Committee recognizes that in some communities ambulatory service for public patients is provided in physicians' private offices rather than in outpatient departments. Payment to outpatient departments should be dealt with as a question of broad public policy, bearing in mind that group practice in well-organized clinics may provide better facilities for diagnosis and treatment than is frequently available in individual physicians' offices. Public medical programs should preserve the right of the individual patient to choose between ambulatory care in a physician's private office and in a clinic suitable to his needs, when such clinics exist in his community.

Moreover, outpatient departments may with great advantage cooperate with private practitioners by providing diagnostic and consultant service to patients cared for by these physicians in their private offices.

* Adapted from *Hospitals* 16:89-95, March 1942; 93-99, April 1942.

¹ Hospital care for the needy; relations between public authorities and hospitals, *Hospitals* 13:22-29, Jan. 1939.

² *Ibid.*

³ *Ibid.*

⁴ *Public Welfare News* (American Public Welfare Association), Aug. 1940.

Consequently, the Joint Committee undertook to prepare a statement of policies and principles concerning payment to outpatient departments. Previous to the development of "Hospital Care for the Needy" a study had been made by the American Public Welfare Association of the current practice of using tax funds for payment to voluntary hospitals for inpatient care.⁵ Before attempting to draft a statement concerning payment from tax funds for outpatient service, the Committee made inquiries by mail as to the prevalence of this policy and conducted considerable correspondence with some communities in order to ascertain the administrative procedures involved.

A tentative draft of this statement was printed in *Hospitals* (April and May issues, 1941) and was widely circulated for comment and criticism. The present statement has been revised in accordance with the suggestions received. This statement includes:

- A. Summary of pertinent data
- B. Discussion of problems
- C. Suggested policies and procedures

A. SUMMARY OF PERTINENT DATA

Extent to Which General Outpatient Service Is Being Provided by Nongovernmental Hospitals

Data were presented in "Hospital Care for the Needy" which indicate the large extent to which general hospital service in this country is provided by nongovernmental institutions. These institutions constitute 83 per cent of the number of general hospitals and furnish 68 per cent of the bed capacity.⁶

Except in large cities, government also plays a relatively small part in providing outpatient service. A study made by the U.S. Public Health Service indicates that

less than one-quarter of the general outpatient departments are under governmental auspices (state, county, and city). On the other hand, these governmental departments are generally large. As a result, nearly half (46 per cent) of the volume of service (number of visits)⁷ is provided by this group.

Development of Outpatient Service in the United States

Although the establishment of "dispensaries" for the sick poor accompanied and in some communities antedated the development of hospital service in this country, during the early days the development of outpatient service did not keep pace with that of hospitals. More recently, the number of outpatient departments and the service provided by them has increased by leaps and bounds. Of 461 general outpatient departments which reported their date of establishment in a recent study, 26 per cent were opened before 1900, 25 per cent between 1900 and 1920, and 49 per cent in the period 1920-1936.⁸

This increase has been due to several factors, including the change of clinic clientele from the destitute to persons who are ordinarily self-supporting but who cannot meet the costs of private medical care (this change of clientele was accentuated during the depression); and recognition of the advantages, both economic and scientific, of providing ambulatory service for the sick poor in outpatient departments where consultant and diagnostic services are available.

⁵ Nelle L. Williams, *Public Welfare Agencies and Hospitals*, Chicago, American Public Welfare Association, 1937.

⁶ 1936 data.

⁷ Margaret Lovell Plumley, General outpatient departments; the important element in organized outpatient care, *Hospitals* 11:303-332, Sept. 1937.

⁸ *Ibid.*

At present, general outpatient departments are concentrated in large cities. A recent study⁹ indicated that such services are available in 80 per cent of cities of over 100,000 population and, in contrast, only 5 per cent of the cities with less than that population have general outpatient departments.

A recent article¹⁰ describes the gradual change in policy concerning charges to patients—from nominal fees or none at all to 25 and 50 cents a visit, plus extra charges for medicine and special service.

With the advent of the depression, the number of outpatients enormously increased, the proportion of those able to pay decreased to an even greater extent, and outpatient departments were faced with a much greater demand for free service at a time when all their sources of revenue were sharply reduced.

Efforts to meet the rising costs of outpatient service without impairing the quality of care led to discussion of securing payment from tax funds, especially for service to recipients of public assistance, who constituted a very large proportion of clinic patients.

The Federal Emergency Relief Administration's Rules and Regulations No. 7, pertaining to medical care, clearly enunciated the principle that medical care is one of the necessities of life, for which relief funds may properly be used. Although these rules specified continuous use of existing facilities, such as hospitals and clinics, without payment from relief funds, the establishment of the principle of payment from tax funds for medical care was an important step, as previous social work tradition had been to seek to get medical care for clients without paying for it.

Several studies made after 1930 recommended that tax funds be used to pay for outpatient service. These studies include

the report on state aid in Pennsylvania, the social study of Pittsburgh, and the hospital survey for New York.¹¹

Practice of Using Tax Funds to Pay Nongovernmental Institutions for Outpatient Service

In an effort to determine the prevalence of the practice of using tax funds to pay nongovernmental hospitals for outpatient service, the Joint Committee made an inquiry by postal card to a representative list of voluntary general hospitals with organized outpatient departments. The only questions asked in this preliminary inquiry were whether or not the institution received payment from tax funds and, if not, whether the subject of such payment had ever been considered. Incomplete response to this inquiry and data available from other sources revealed that, although the practice of making payment from tax funds for outpatient service is not carried out as extensively as that of paying for inpatient care, it is fairly widely developed throughout the country. Reports received show that this policy is in force throughout the state of Pennsylvania and in more than seventy cities in thirteen other states.

Some localities also reported tax payments for special services or special clinics—for example, in New York City the Department of Welfare reimburses outpatient departments for drugs furnished to recipients of relief; and tax funds are used to pay for service in nongovernmental

⁹ *Ibid.*

¹⁰ Margaret Lovell Plumley, Payment from tax funds to voluntary hospitals for outpatient service, *Hospitals* 14:99, Jan. 1940.

¹¹ State Welfare Commission of Pennsylvania, *Report on State Aid to Private Charitable Institutions and Agencies*, 1934 (Special Bulletin No. 63); Philip Klein and others, *A Social Study of Pittsburgh*, New York, Columbia University Press, 1938; United Hospital Fund, *The Hospital Survey for New York*, New York, The Fund, 1937-1938.

venereal disease or orthopedic clinics in about fifty communities.

This report deals with the payment of public funds for the medical care of indigent or needy persons. Throughout the United States health departments have also utilized public funds to aid clinics in the diagnosis, treatment, and control of certain diseases. Federal, state, and local funds may thus be involved in aiding syphilis or tuberculosis clinics under voluntary auspices; in recent years public health funds have facilitated the establishment or maintenance of cancer clinics and occasionally of other special services of public health interest. In some localities institutions receiving public health funds for such purposes may, in addition, be paid by another governmental department for the outpatient care of needy persons. Public aid to voluntary institutions by categories of disease is a subject which, if pursued, would require a special and independent study.

Administrative Practices

In order to secure, in some detail, information as to the policies and procedures governing tax payment for outpatient service, letters were sent to hospital administrators in different parts of the country (1) where the postal card reply had indicated that a significant amount of work was being carried on or that the plan had unusual administrative features or (2) where a detailed reply could be expected because the hospital administrator was well known to some members of the committee. In nearly all cases, inquiry was also made from representatives of the welfare departments in the same localities. This inquiry included questions as to:

Whether all outpatient departments in the locality participate in the program or, if not, the criteria for selection

The agency responsible for making payment
Method and rate of payment
Economic eligibility
Method of referring patients and authorizing care at public expense
Methods of recording service and billing the public agency
Forms and other details as to procedure

Although follow-up letters were written, complete replies were received from few localities. It appears that in some places, especially where the amount of service is slight, procedures have not been formalized and therefore detailed description was impossible. The data secured will be presented in two ways: (1) fairly complete descriptions of typical set-ups in Chicago, Rochester, San Francisco, and the state of Pennsylvania, where a considerable amount of outpatient service is being paid for; and (2) an analysis, by subject, of the information secured from six other localities.

Chicago. Since early in 1933, the Cook County Relief Administration and its successor, the Chicago Relief Administration, has paid Chicago hospitals \$200,000 or more yearly for outpatient service to relief clients. The plan for reimbursing hospitals for outpatient service is part of a comprehensive program for medical relief, developed with the advice and cooperation of the Health Division of the Council of Social Agencies. The Health Division serves in an advisory capacity to the Relief Administrator on its medical program, and the Commissioner of Relief looks to it for recommendations on standards, administrative policy, and the selection of hospitals and clinics to participate in the program. The Health Division serves the Community Fund in a similar capacity and the programs of the Fund and the Relief Administration for reimbursement for outpatient service are closely integrated, the latter making payments for service to re-

lief clients and the Fund on the basis of free service to the medically needy.

Not all clinics in the city participate in the program. The Health Division developed standards which must be met by hospitals and their outpatient departments in order to be eligible for this public service,¹² and advises the Relief Administration on the selection and designation of the institutions which meet these standards. Incidentally the same standards apply to participation in allocations from the Community Fund.

Payment to clinics is at the rate of 65 cents a visit, which includes all necessary medical care, drugs, dressings, x-rays, and laboratory services. Medical appliances are purchased by the Relief Administration. Two or more visits may be charged for if the patient attends two or more outpatient clinics during a single visit.

Allocations are made monthly in accordance with the volume of service rendered by each clinic to recipients of relief, and are limited to amounts not exceeding, on an annual basis, the deficit attributable to these services incurred by the clinic. The Health Division of the Council advises the Relief Administration on both the total allocation for clinic service and allocations to individual outpatient departments. Such advice is based on monthly financial and service reports submitted by each institution to the Health Division, which are available to both the Relief Administration and the Community Fund.

The Relief Administration pays only for service rendered to recipients of relief for whom care is authorized on a special form for medical referral. Two other interesting forms are used in connection with reference of patients for clinic care.

One form, which is used by case workers in initiating the request for approval by district office medical units, includes place

to record the nature of the disease, whether the patient or a member of his family has ever attended a clinic, the name of the clinic, and the date of last attendance.

The other is an "outline to accompany medical referrals," which suggest items of information, such as pertinent medical history, work history, or (for a child) school history, social background, family relationships, etc., which it may be desirable to include in referrals where there are special medical-social problems or when a full report from the clinic is required to plan for the patient.

In this connection, the Coordinating Committee of the Family Service Section and the Health Coordinating Committee of the Council of Social Agencies have developed a statement entitled "Cooperation between Family Agencies and Social Service Departments of Medical Agencies," which enunciates the principles of referrals and cooperation in treatment.

The outpatient departments are responsible for keeping records of service and preparing bills. They submit each month to the Relief Administration invoices bearing the signature of the patient and showing the number of visits and total charges for each patient during the month.

Copies of the rules and regulations in regard to clinic service and of the forms in use may be secured from the Chicago Relief Administration, Merchandise Mart, Chicago.

Rochester, New York. Since 1935 the Department of Public Welfare of Rochester, New York, has made payments to the hospitals in that city for outpatient service. The plan was developed by the Director of the Medical Service Division of the Department of Public Welfare (a physician),

¹² *Hospital Council Bulletin* (Chicago Hospital Council), Nov. 1939, pp. 16, 17.

in conference with representatives of the hospitals.

All the outpatient services in the city, except one, participate in the program. The reason for excluding this institution is that it failed to meet the requirement of providing at least 20,000 visits annually. No other standards for participation in the program were set up, as it was believed that all the institutions concerned had adequate standards.

The rate of payment is 50 cents a visit, exclusive of extra charges, at agreed rates, for x-ray diagnosis and therapy, and for especially expensive medication, such as insulin, liver preparations, and other specific items which have been previously approved. Two or more visits may be charged for if the patient attends two or more outpatient clinics during a single visit.

In 1939, the Department of Welfare paid the hospitals \$51,462.19 for 73,804 outpatient visits or at the rate, including charges for extra services, of about 70 cents a visit. The actual cost per visit to the Department of Public Welfare, including the salaries of workers assigned to the clinics whose functions are later described, was over 85 cents a visit. It is interesting to note that in 1939 the Department of Welfare paid for 26.9 per cent of the visits to participating clinics.

The State Department of Social Welfare reimburses local departments for 40 per cent of the medical expenditures, including those for clinic visits, which are made according to approved plans.

The Welfare Department pays only for service to persons who are currently receiving relief. Patients may apply directly at the outpatient departments for treatment, without referral from the public agency. However, the Department of Public Welfare controls authorization for payment from public funds through

workers assigned to each outpatient department. There are twelve such workers, the number assigned to each institution depending upon the volume of service. Their functions include:

Verification of the relief status of "new" patients who state that they are receiving relief, by telephoning the central record office of the Department of Public Welfare

Preparation of vouchers for authorization of service and of daily summary sheets of service provided for relief clients

Maintaining a file of case records for each authorized patient, on which are indicated the date, clinic, diagnosis, special service or medication, and charges for every visit made at the outpatient department

Securing reauthorization from the Department of Public Welfare for patients who have already made five visits

Accounts and bills are sent in monthly to the Department. Bills list the daily totals, which are checked against the daily summary sheets of service provided to relief clients.

Copies of the forms used in administering this program may be secured from the Medical Service Division of the Department of Public Welfare, Convention Hall Annex, Rochester.

San Francisco. The Central Medical Bureau, which serves as the "general practitioner" for relief clients, refers cases requiring specialists' service for diagnosis only or for treatment to the outpatient departments in that city.

The Health Council has frequently advised on the relationship between the Medical Bureau and the outpatient departments.

All hospital outpatient departments, except those of proprietary hospitals, are eligible to provide service, although in actual practice patients are most frequently referred to two large teaching clinics,

which are glad to have interesting cases for clinical discussion.

Payment is made at the rate of 65 cents a visit, inclusive of all diagnostic service and treatment. It was reported that the actual cost of service, determined by a recent survey by the local Community Chest, was approximately \$1.00 per visit.

Each visit is paid for when a patient is cared for in two or more outpatient clinics during a single attendance.

As the service of the Central Medical Bureau is restricted to recipients of relief, payment to outpatient departments is obviously only for relief clients.

A referral form, which includes identifying data, the date of issue and of expiration, is used to authorize service by outpatient departments. Reference procedure also includes a medical referral form, devised to record pertinent medical information, which aids in immediately admitting the patient to the appropriate special clinic and obviates repetition of laboratory work which has already been done.

Each outpatient department prepares and submits monthly an itemized bill giving the name, case number, and number of visits of each patient. This is sent to the local relief office for verification of case activity. The accounting division later deletes any charges made for patients who are no longer active relief clients.

As the outpatient departments have insufficient clerical staffs to make medical reports to the Central Bureau, the Bureau has a physician on its own payroll in the larger institutions, who reviews the case records of referred patients and prepares reports to the Bureau. As the policy of the Bureau is to discontinue use of the special outpatient service as soon as a diagnosis has been established and a course of treatment recommended which could be han-

dled by the less adequate facilities of the Bureau, the outpatient departments may "lose" patients for whom they have done intensive work and in whom they have become interested. The Bureau reports, however, that some cases of unusual teaching value are allowed to continue in the special clinics.

State-wide Plan in Pennsylvania. Since February 1939 the Department of Public Assistance in Pennsylvania has paid for outpatient service according to policies developed with the advice of the State Healing Arts Committee, which includes representation from all the medical and allied professions and the State Hospital Association.

The bulletin issued by the State Hospital Association concerning the plan¹³ states that "recognized hospital clinics will be permitted to participate in the medical program." No minimum standards have been developed as the basis of selecting for public service those institutions which are providing outpatient care of good quality.

Clinics are entitled to charge 50 cents a visit, exclusive of medicines. (Under the same plan, physicians charge \$1.00 for office calls.) Medicines are provided by outside pharmacies according to prescriptions written by clinic physicians. A charge of \$5.00 is allowed for an x-ray examination to determine the presence or absence of fracture.

Even though a patient may be treated by two or more clinic departments during the same visit, charge may be made for only one visit.

All charges for outpatient service, together with charges for all other medical

¹³ Information to clinics in connection with services to patients who are assistance cases of the Department of Public Assistance. From the Hospital Association of Pennsylvania, Jan. 27, 1939.

service¹⁴ except drugs, are prorated, that is, all approved charges are totaled and, after pharmacists' bills are paid in full, are paid in proportion from the designated funds set aside in each county for medical care—20 cents a month per person receiving public assistance. The amount of proration varies from month to month and from county to county. During 1939, hospital clinics throughout the state were paid approximately \$142,000 for an estimated total of 347,000 visits, or at the average rate of a little over 40 cents a visit.

Under this program, payment is made only for persons actually receiving assistance from the Department of Public Assistance. Patients apply directly to the outpatient departments, which are responsible for determining, by communication with the public agency, whether or not the patient is receiving assistance. For patients with chronic illness, who require long periods of care, the existing rules state that authorization for prolonged treatment must be secured from the local County Healing Arts Committee.

Only one form is used in this program—the "Standard Medical or Dental Invoice." Regulations concerning the preparation and use of this invoice include:

Service for all members of the same family must be carried on the same invoice. Invoices are prepared in quintuplicate, one copy being retained by the hospital. They include a record of the diagnosis and the signature of the patient.

Invoices must be submitted monthly, not later than the fifth of the month, for patients treated the previous month. For patients still requiring treatment at the end of a month, the invoice submitted is marked "treatment continued" and a new invoice is prepared for the subsequent month.

Invoices are forwarded to the local Healing Arts Committee for review and ap-

proval (or disapproval) of the charges. Invoices for patients who are not currently receiving assistance are returned to the hospital, disapproved. As previously stated, payment is prorated according to the funds available.

Copies of the regulations concerning this program and of the forms used may be obtained from the Department of Public Assistance of the Commonwealth of Pennsylvania, Harrisburg, Pennsylvania.

Summary of Pertinent Data from Other Communities

Less complete data are presented from six other communities: Fletcher, North Carolina; Louisville, Kentucky; Poughkeepsie, New York; New Bedford, Massachusetts; New Haven, Connecticut; and Springfield, Massachusetts.

In all of these localities except one, the public agency responsible for payment is the Department or Board of Public Welfare. In Fletcher, North Carolina, the County Board of Commissioners is responsible.

In three of these communities, Louisville, New Haven, and Springfield, different hospitals have different arrangements with the public agency concerning methods or rates of pay, indicating that no community-wide plan has been developed in conference with representatives of all the hospitals. In each of the three other localities, only a single local hospital receives payment for outpatient service.

The method and rate of pay varies as follows:

Fletcher, North Carolina. There is no set charge, but a flexible fee on a per visit basis, with special service extra.

Louisville, Kentucky. One outpatient

¹⁴ Inpatient hospital service is not paid for under this program. The State Department of Public Welfare allocates state aid to voluntary hospitals in Pennsylvania.

service is paid 50 cents a visit, exclusive of laboratory and x-ray examinations and drugs, which are charged for at the estimated cost. Another hospital is paid \$1.00 a visit, inclusive of all services.

New Bedford, Massachusetts. The rate is 25 cents for admission, with extra charges at cost for medication, dressings, laboratory and x-ray examinations, and tonsil and adenoid operations.

New Haven, Connecticut. One hospital is paid by a lump-sum appropriation. Another is paid \$1.00 a visit, inclusive of all services.

Poughkeepsie, New York. A lump sum appropriation has been succeeded by a fee of \$1.20 a visit, which is the same rate at which physicians charge for office calls by relief clients. All bills for physicians' home and office calls and for clinic visits are prorated. In 1939, \$1,159.61 was paid for 1,534 clinic visits, indicating that the rate of pay after prorating was a little over 75 cents a visit.

Springfield, Massachusetts. Payment for prenatal care in maternity hospitals is at the rate of 75 cents per visit. A general outpatient department is paid only for medicine, x-ray diagnosis, and therapy.

Procedures for determining eligibility, referring patients, and authorizing care at public expense are not standardized in all of these localities. In some, the service is relatively small and the procedure is informal.

In *Fletcher*, county welfare clients and WPA workers are eligible, although each case is acted upon individually. Most cases are referred to the clinic by the welfare authorities, but the clinic may initiate request for authorization. No forms are used for authorizing service.

In *Louisville*, patients are usually referred by the Welfare Department, which is responsible for determining eligibility.

Approximately 75 per cent of the patients for whom payment is made are receiving relief; the other 25 per cent are the so-called "medically needy." No forms are used.

The outpatient department in *New Bedford* initiates the request for authorization by form letter and the Department of Public Welfare returns an authorization notice for patients for whom responsibility is accepted. Payment is made for both recipients of relief and the medically needy.

The outpatient department in *New Haven*, which is paid on a per visit basis, is only authorized to provide necessary follow-up care to patients for whom the Department of Public Welfare has already accepted responsibility for inpatient care.

In *Poughkeepsie*, the outpatient department sends a postal card to the Department of Welfare requesting authorization. If Welfare accepts responsibility for payment, an authorization is returned which is good for fourteen days and must be renewed if service is continued beyond that period.

In *Springfield*, some cases are referred by the public agency, and in some instances the outpatient departments request authorization for patients who have applied to them directly. The Welfare Department reported that payment is made for the medically needy as well as for relief clients.

Procedures for recording service and billing the public were described as follows:

In *Fletcher*, bills for each patient are usually rendered at the termination of the illness.

One hospital in *Louisville* sends in bills at the end of each month, accompanied by a résumé of the medical care rendered each patient together with any pertinent recommendations made by the medical staff.

In *New Bedford*, a clinic clerk keeps

a record of all service and charges for each patient for whom the welfare department has authorized service. Separate bills are rendered for each patient every month.

The authorization form used in *Poughkeepsie* also serves as the form for rendering bills. It must be prepared in triplicate and, as regulations require that bills must be notarized, each copy must be personally signed by the administrator of the outpatient department.

B. DISCUSSION OF PROBLEMS

Correspondence and discussion with hospital and welfare administrators concerning the policies and procedures involved in using tax funds to pay for outpatient service have raised a number of questions and problems, which are discussed below.

Payment of Physicians for Outpatient Service

Several correspondents questioned the policy of paying outpatient departments for service, without at the same time arranging to compensate physicians for their service to outpatients. It was brought out that, especially if a public program provides for payment for physicians' office calls as well as outpatient service (as does the Pennsylvania state program) the physicians who provide clinic service without compensation are really taking money out of their own pockets; and that this situation tends to decrease the extent to which outpatient services are used, by aggravating the pressure brought to bear by the physicians in some localities to replace outpatient service for the needy by service in private offices.

Recently there has been considerable discussion concerning the payment of physicians for hospital as well as outpatient service for the needy.¹⁵ In discussing payment

of physicians for outpatient service, the Hospital Survey for New York states:

It is not reasonable for the public and those responsible for maintaining outpatient services to expect physicians to give regular hours of their time to the routine care of outpatients, without compensation. If arrangements are made by which the City of New York will pay voluntary institutions for their outpatient service to the sick poor, a substantial proportion of such funds should be earmarked for the payment of the physicians who work in such outpatient departments.¹⁶

Standards for Outpatient Service

One leading hospital administrator is of the opinion that programs for the payment of outpatient service cannot be satisfactorily developed because there is such a wide range between institutions in the quality and content and also in the cost of an outpatient visit; and that for this reason it will be impossible to develop any uniform rate of payment in the same community.

There is probably a wider range, between standard and substandard institutions, in the content and value of an outpatient visit than there is between a day's care for an inpatient; but it is an open question whether the content and value of outpatient visits vary any more widely than do the content and value of visits to physicians' private offices.

At present there is no agency which performs a standardizing service for outpatient departments similar to that carried on by the American College of Surgeons and the American Medical Association for hospitals. Only one of the public programs previously described (Chicago) has developed local standards and applied them.

¹⁵ *Hospital Survey for New York*, Vol. III, pp. 339-341; Klein and others, *op. cit.*, p. 756.

¹⁶ *Hospital Survey for New York*, Vol. II, p. 496.

In planning for the payment of public funds for outpatient care, communities must squarely face the problem of selecting only those institutions for service in which they will secure medical care of at least reasonably good quality.

Community Planning

Some of the smaller programs concerning which information was secured were not developed on a community-wide basis but by negotiation between individual hospitals and the public agency. Reports from at least two of these localities indicate that there is some dissatisfaction due to discrimination, between different institutions, in methods and rates of pay.

All of the large services described were developed on a community-wide basis and with the advice of the professions concerned.

Method and Rate of Pay

In all of the programs except one concerning which information was secured, payment is made on a per visit basis. This policy conforms to that enunciated in "Hospital Care for the Needy" of payment on a per diem basis for inpatient care.

Many of the agreed per visit rates are not "inclusive," as is recommended in "Hospital Care for the Needy" for per diem rates. If extra charges are made, the public agency should, at least theoretically, institute professional control to determine, by record review, whether the special services provided were essential for the patient. Such investigations would add considerably to the cost and would be irksome (to say the least!) to outpatient departments. As one outpatient executive puts it, outpatient departments are in a much better position to judge of the necessity of prescriptions and orders for special services, and if the per visit rate is inclusive, will

exercise "very special judgment on each order and themselves decide on those definitely required and those which might be reconsidered by the physician who ordered the extra."

Recording and billing procedures are much simpler and less costly if charges are inclusive. However, there are probably a few unusual and expensive services which might well be charged for in addition to the regular fee. Provision of glasses and other appliances should certainly be included among extra charges.

The disproportion between the per visit cost of providing outpatient service and the rate of pay was stressed by the hospital administrators in nearly every locality. One designated the plan for payment from public funds as a "moral victory" rather than a reasonable payment for service rendered. Few of the prevailing per visit rates of pay meet the average cost of outpatient service, which (excluding payment to clinic physicians) is probably around 75 cents to \$1.00 a visit in institutions which provide good quality of care. However, hospitals are exempt from various forms of taxation and many of the larger ones receive income from endowments and current contributions; and for these reasons should be expected to share in the cost of public service.

Moreover, cost accounting, especially with respect to outpatient service, is probably not sufficiently accurate in many institutions to provide a sound basis for arriving at "cost," and reported costs cannot be used as an accurate index of quality of service.

What Constitutes a Visit?

Under the Pennsylvania plan, "refers" and "transfers" at the same visit are not counted as extra visits. On the other hand, it is customary in many outpatient departments to count each visit to a separate

clinic—for example, general medicine, eye, or dentistry—as a separate “visit,” even though the patient attends several clinics on the same day. The latter method of counting visits is used under the Chicago, Rochester, and San Francisco plans.

The definition of a visit accepted by the American Hospital Association and the instructions¹⁷ issued by the Federal Children’s Bureau in gathering statistics of outpatient service both indicate that attendance at two or more outpatient clinics during the same day should be counted as two or more visits.

Eligibility and Authorization

In all of the large programs described (Chicago, Rochester, San Francisco and the state-wide plan in Pennsylvania) the public agency makes payment only for service to persons receiving public assistance or relief. In Chicago the Community Fund makes allocations for outpatient service, based on the amount of free care provided for the group of persons who are not on relief. In some of the smaller localities, it was noted that the public agency made payment for the “medically needy” as well as recipients of relief.

Service is authorized by the public agency in all plans, except Pennsylvania where the procedure of disallowing bills for nonassistance patients has the same effect as pre-authorization. In almost all plans patients may either be referred by the public agency or the request for authorization may be initiated by the outpatient department on behalf of a patient attending the clinic. Although, from the standpoint of control of expenditure, it may seem desirable for the public agency to refer and pre-authorize all service, hard and fast rulings to that effect would interfere with prompt service to the patient.

Duration of Treatment

The problems which arise under this heading are similar to those which were discussed in “Hospital Care for the Needy” with reference to “length of stay” in the hospital. Especially if per visit rates of pay are sufficiently high, a tendency might easily appear for clinics to continue treatment longer than is necessary. Several of the plans have developed safeguards against such a tendency: special authorization for patients requiring prolonged care in Pennsylvania; requirement for renewal of authorization after fourteen days in Poughkeepsie, and after five visits in Rochester; and medical follow-up of referred patients and their records in San Francisco. In considering such safeguards, it must be borne in mind that the savings will not be great if the administrative procedures involved are too costly; and that probably most large outpatient departments are already very much too busy to encourage unnecessary visits—the only exception being visits by patients who are unusually interesting for teaching purposes, the cost of whose care might voluntarily be assumed in large teaching clinics.

Clerical Work and “Red Tape”

There were a considerable number of complaints by hospital administrators concerning the large amount of clerical labor involved in filling out the necessary forms required by the public agencies to meet auditing requirements. A number of the large institutions have had to add to their clerical staffs in order to meet the extra clerical work involved; some have been able to distribute the extra burden among their regular employees. Personal signature of the hospital administrator on all copies of an invoice seemed unnecessary “red

¹⁷ See Appendix, pp. 348–349.

tape" to one correspondent. As another correspondent put it, "It [the rate of pay] is not satisfactory to the hospitals because the extra work involved nets such a small financial return that it hardly pays its way." Sorting of all records of service by "family" is a time-consuming, end-of-the-month process in one plan which requires a single invoice for all members of the same family. Another complaint is that payment by the public agency is very slow because so much red tape is involved.

The plan in Rochester is the only one, from which details were secured, where the public agency assumes the responsibility for keeping all records, preparing bills, and so forth. It is estimated that this administrative service costs the public agency over 15 cents a visit. This might be borne in mind in arriving at reasonable rates of payment under plans where the public agency devises the "red tape" with which the outpatient departments must conform. On the other hand, hospital administrators must recognize that satisfactory controls are necessary in the expenditure of public funds for relief and that expenditures for medical relief must be subject to the same controls that are set up for other relief expenditures.

C. SUGGESTED POLICIES AND PROCEDURES CONCERNING THE USE OF TAX FUNDS FOR OUTPATIENT SERVICE

General Policies

The general policies concerning the use of tax funds for outpatient service provided by nongovernmental agencies are substantially those enunciated in "Hospital Care for the Needy" concerning payment for inpatient service.

The Committee recognizes that payment for outpatient service on a per visit basis entails more elaborate and expensive

administrative procedures than may seem to be justified by the relatively small charges involved; but is still of the opinion (as stated in the following item 4) that payment should be made on the basis of service rendered.

1. It is recognized that the provision of general outpatient service by local governments is often insufficient to meet the needs for free or low-pay care.

2. It is taken for granted as a sound principle of public policy that full use should be made of all governmental outpatient services existing in a community; and that where existing facilities are insufficient, governmental general hospitals should be encouraged to develop outpatient departments.

3. It is recognized that the use of tax funds from local governments to pay nongovernmental hospitals for the outpatient care of the needy is a fairly widespread and, under some local conditions, a reasonable policy.

4. Payment should be on the basis of service actually rendered. Payment on a lump sum or subsidy basis is undesirable.

5. Physicians should be paid for outpatient work where this is necessary to maintain satisfactory standards of service.

6. Public welfare officials should deal jointly with the hospitals of their community. The experience of local public officials indicates that this can best be accomplished through the organization of hospital councils or health divisions of councils of social agencies within each community or political unit of sufficient size. Where, because of the smallness of the community or for other reasons, such organizations are not practicable, public officials should suggest that the approved local hospitals constitute a committee to represent them jointly in conferences with public authorities.

7. Public officials should recognize that good outpatient service is increasingly complex and costly; that a high standard of care of patients is important and an ultimate economy; and they should appreciate the close relation of outpatient service to inpatient care, general medical practice, and public health. Plans for payment for outpatient service should be an integral part of planning for all public medical services.

8. The hospitals on their side should recognize the advantages of presenting a united front to the community concerning their needs; of avoiding internal dissension and competitive action which would lower standards of service. The public spirited citizens on hospital boards should present their case to governmental officials without a competitive attitude and from the point of view of community needs.

9. Both the public officials and the hospitals of each community should recognize that the rate of payment for service must be adjusted through conference, taking into account operating costs and other considerations which will vary among communities, and that no fixed simple formula controlling rate of payment can be generally applied.

10. In seeking payment from public sources, hospitals must recognize that the accepted policy today is to the effect that public funds should be expended through public authorities; that some inspection or supervision of accounts, procedure for charging, and admission of patients must be expected by hospitals when they are dealing with governmental units or requesting funds from them.

11. The utilization of nongovernmental outpatient services for the care of indigent persons at public expense should be ac-

companied by the development of uniform accounting systems.

Standards for Outpatient Service

As was indicated in the previous discussion of problems, hospitals vary even more widely in the quality and content of their outpatient service than in their service to bed patients. The variations between good and inferior quality of outpatient care are extreme. A so-called outpatient department may consist only of accident and emergency service to ambulatory patients. The content of an outpatient visit may range from a hasty, superficial observation of the patient "from the neck up," by an inexperienced hospital intern, with a prescription of an aspirin or a cathartic, to a thorough examination and discussion of the patient's condition by a group of experienced physicians, including specialists, several necessary diagnostic procedures, and the indicated advice and medication.

It must be borne in mind that the inadequate service provided by some institutions is due primarily to lack of funds; and that payment for service to public patients could provide the wherewithal to improve the quality of care.

It is obvious that accepted standards for service must necessarily vary in different communities, that is, that selection of institutions for public service must be among the existing institutions. In all except small communities consideration must be given to having a number of approved outpatient services in localities which are reasonably accessible to the low-income group.

Standards for outpatient service have been adopted by the American Hospital Association and the American College of Surgeons; and in certain special branches, for example, clinics for tuberculosis, syphi-

lis, gonorrhea, and cardiac conditions, more detailed standards have been promulgated by other national bodies.¹⁸ There is, however, no systematic inspection of outpatient departments and other clinics, or published lists of clinics which meet certain standards, such as exists in the case of the inpatient services of hospitals. Public welfare and other governmental departments which pay tax funds for outpatient service therefore cannot obtain from national professional bodies a ready guide to the standards of institutions which they may be called upon to aid.

This Committee recommends that the American Hospital Association give consideration to the development, by itself or along with other appropriate agencies, of a systematic standardization program for outpatient departments.

Pending such a development, the Committee makes the following suggestions concerning selection by the public agency, of the nongovernmental outpatient departments to be paid for service:

1. The public agency should, with the advice of hospital or health councils, state or local hospital associations, representatives of the American College of Surgeons, medical societies, or others informed about hospital standards, develop and apply minimum requirements for the outpatient departments to be used for public service.

2. Standards should be based on those developed by the Out-Patient Committee of the American Hospital Association and by the American College of Surgeons, which are given in the Appendix.

3. Standards should be developed in the light of existing local provisions. They should not be so high, especially in communities with meager facilities, as to exclude most of the existing services. On the other hand, in cities amply supplied with outpatient departments, selection

should be based on wholly adequate standards.

4. In order to encourage an improvement of standards by means of payment from public funds, it may be desirable, especially in communities where most of the available service is of inferior quality, to provisionally approve institutions which do not meet the standards agreed upon. This should be done with the definite understanding that approval will not be continued after a stated period of time unless standards are met.

5. Standards should include the provision that clinics shall be the outpatient departments of hospitals, or have a definite affiliation with hospitals for inpatient service.

6. In general, the institutions selected for outpatient service should be the same as those providing bed care for patients who are public responsibilities.

7. Comparable systems of accounting by hospitals should be required.

The Per Visit Rate

The previous "Discussion of Problems" includes discussion of methods and rates of pay, what constitutes a visit, and the clerical procedures involved in meeting the requirements of public agencies.

1. Section 4 under "General Policies" indicates that payment should be made on the basis of service rendered. As the unit of service for outpatient care is the "visit," payment should be based on the number of visits made by persons for whom the public agency has assumed responsibility.

2. Any medical conference constitutes a visit; therefore charges may properly be made for two or more visits if the patient,

¹⁸ See, for example, publications of the Committee on Administrative Practice of the American Public Health Association.

during the same attendance at an outpatient department, is cared for in two or more outpatient clinics. Refers for special diagnostic examinations or tests should not be counted as visits.

3. Sections 6, 8, and 9 under "General Policies" indicate that in arriving at per diem rates of pay, as well as in developing all other policies, the public agency should deal jointly with all of the hospitals in a community and not with individual hospitals on a competitive basis.

4. Public authorities should bear in mind that needy persons are entitled to a high standard of care and that per visit rates must be high enough to permit this type of service, and that hospitals cannot assume the responsibility of caring for public patients if the remuneration for their care is too small to enable the hospital to provide satisfactory service for this group.

5. The rate of payment per visit should be uniform for all institutions in the same community. In localities where there are adequate systems of uniform cost accounting and control of standards which can be recognized by the public authorities, a varying rate of payment, up to an agreed maximum, might be practicable.

6. All extra services, with the exception of a very few unusual and expensive procedures, should be included in the per visit rate.

7. Community support previously received by hospitals for outpatient service and the amount of free service given in the years preceding the arrangement with public authorities, should be taken into consideration in determining per visit rates. Voluntary outpatient departments should continue to seek community support from voluntary funds on the basis of charitable service.

8. Hospital representatives should agree among themselves on a tentative uniform

rate which they should present to the public authorities as a basis for negotiation.

9. In preparing for such negotiation, the hospital should compute their individual costs for outpatient service on a basis which is comparable for all the institutions concerned, as governmental authorities may be expected to request full information concerning the methods of computing costs which led to the establishment of the proposed rate.

10. A fair per visit rate may be considered one which is neither as high as the cost in institutions which provide elaborate services nor as low as that of institutions rendering a poor quality of care. The cost of near-by governmental outpatient services of good quality may well be considered in this connection, provided that the costs are computed on a comparable basis.

11. In establishing rates of pay, governmental authorities should bear in mind that the preparation of the forms, invoices, and so forth required for the control of public expenditures necessitate considerable clerical labor on the part of hospitals.

12. Governmental authorities should aim to reduce accounting and billing procedures to a minimum consistent with the controls established for other types of public expenditure.

Eligibility and Authorization for Service at Public Expense

The principles involved in determination of eligibility are the same as those enunciated in "Hospital Care for the Needy" which are quoted at the end of this section.

Whether or not application for authorization may originate with the outpatient department is a point which may require special consideration. As the determination of medical need is a medical respon-

sibility and usually may be most readily made at the outpatient department, outpatient departments should be free to initiate request for authorization on behalf of patients who have come to them for care.

The length of time for which service should be authorized is another point requiring consideration. Although it is probable that control of the duration of treatment in outpatient departments is not nearly as essential as control of the length of stay in hospital wards, it may be desirable, especially in localities where payment for outpatient service represents an important expenditure, to control the duration of treatment by requiring reauthorization for service after a stated number of visits, as in Rochester, or after a stated period of time, as in Poughkeepsie; special authorization by medical authority for service to patients who require prolonged treatment, as in Pennsylvania.

However, in developing such controls, the public agency must take due precaution to avoid interfering with the use of outpatient departments for service to the chronically ill, as clinic care is especially valuable for this large group of patients.

As indicated in our former statement on "Hospital Care for the Needy," public funds are expended in many places and we believe should properly be expended for the medical care of persons who are otherwise self-supporting (the so-called medically needy) as well as for persons who are eligible for general relief or for other forms of public assistance.

In connection with outpatient service, however, the determination of eligibility, the authorization for service, and the necessary auditing procedures may involve administrative difficulties and require more expense than seem justified in comparison with the small rate of payment per visit.

This may be especially true in large communities. It should be pointed out, on the other hand, that the comparison may more properly be made with the total cost of treatment for an illness than with the rate of payment for a single visit.

With these considerations in mind, the Committee recommends that, unless administrative procedures for the payment of outpatient department care for the medically needy can be simplified by local arrangements, payment from tax funds for outpatient care be usually made only for persons who are eligible for relief or for other forms of public assistance. In small communities where administrative difficulties do not exist, an exception to this policy may be made.

The limitation to persons eligible for public assistance should not be construed to affect payment by health departments or other agencies for care of the medically needy in clinics, for tuberculosis, maternity and child welfare, venereal disease, and other conditions of public health interest.

The following principles concerning determination of eligibility are quoted from "Hospital Care for the Needy." For discussion of these principles, the reader is referred to the Joint Committee's statement.

1. Agreements concerning eligibility for tax-supported hospital care should be developed through local conferences between public officials and representatives of hospitals and the medical professions.
2. The determination of medical need should be a medical responsibility.
3. The determination of eligibility for care at public expense should be the responsibility of the governmental agency which authorizes the expenditure.
4. Persons already accepted for maintenance at public expense should be eligible, without further investigation, for hospital care at public expense.

5. (The following principle is, of course, not applicable when payment is made only for persons who are eligible for public assistance.) For the otherwise self-supporting, decision concerning financial eligibility for care at public expense should be reached by qualified persons after investigation and consideration of the following factors in each individual case:

- a. Pertinent laws and ordinances
- b. Budget sufficient to provide a standard of living consistent with health and decency according to the size and composition of the family
- c. Family income and assets; liabilities and responsibilities
- d. Probable cost of the necessary diagnosis and treatment

6. Hospital care at public expense should be authorized on an individual case basis by the governmental agency responsible for payment.

APPENDIX

Standards for Outpatient Service

The report of the Out-Patient Committee of the American Hospital Association,¹⁹ adopted by the Association in 1926, contained the following five standards:

- I. The outpatient and the bed services should be regarded as intimately associated phases of hospital work and should be unified as fully as possible as to medical staff and as to administrative organization.
- II. The number of patients accepted for care should be limited and regulated according to the facilities of staff, space, and equipment.
- III. Adequate records should be maintained of the medical work, the attendance, and the income and expenditure. All the medical records of a patient should be filed together.
- IV. Adequate laboratory service should be made available for the outpatient department.
- V. Nursing service, social service, and clerical service should be provided. Physicians should be able to devote their

time to their patients and be freed from mechanical and clerical duties.

The American College of Surgeons²⁰ also developed advisory standards about this same time, incorporating the principles formulated by the American Hospital Association. These standards have since been enlarged and extended by both bodies.²¹

Definitions of a Clinic Visit

"A clinic visit is the occasion of treatment or any personal professional service to an outpatient in any subdivision of the clinic for treatment or any professional service.

"Note: The visit is the unit of outpatient service corresponding to the patient-day for inpatient service. If an individual receives several services on the same day, whether in the same or separate divisions of the outpatient department, several 'visits' should be recorded. Services of the x-ray and physiotherapy department, pharmacy and laboratories should not be recorded as 'visits' but as 'films,' 'fluoroscopies,' 'x-ray treatments,' 'physiotherapy treatments,' 'prescriptions,' 'tests,' etc. This procedure differentiates the special services in a more effective manner and does not interfere with their addition to the total of 'visits' if a hospital administrator considers the summation desirable.

"a. The clinical examination of the applicant by the admitting doctor is to be counted as a visit.

"b. No visit is to be counted for the interview of the applicant by the admitting department.

¹⁹ *Transactions of the American Hospital Association*, 1925, pp. 72-77, 84-87; 1926, p. 285.

²⁰ American College of Surgeons, *Manual of Hospital Standardization*, Chicago, The College, 1942, p. 55.

²¹ *Transactions of the American Hospital Association*, 1936, pp. 80-94.

"c. No visit is to be counted if a patient is registered in a department of the clinic, but a doctor fails to see him."²²

"A visit to a clinic or a medical conference is the occasion when treatment or any other personal professional service is given to a patient. In order to be counted on Form H-2, a visit should have been recorded on the patient's clinic record. For a given attendance at the agency, only one visit to any one clinic should be counted, even though several different types of treatment were provided.

"If a recorded service was rendered in more than one clinic or medical conference

during a given attendance at the agency, a visit should be counted for each of these clinics or medical conferences. The clinical examination of an applicant by a physician in connection with the applicant's admission to the clinic should be counted as a visit only if the findings become a part of the applicant's clinic record."²³

²² From American Hospital Association, *Hospital Accounting and Statistics*, Chicago, The Association, 1937, p. 61.

²³ From *Clinic Service; Instructions for Monthly Reports from Areas Cooperating in the Registration of Social Statistics*, Form H-2 Social Statistics, Preliminary, Jan. 1, 1939, Washington, Children's Bureau.

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CHAPTER XIV. SPECIAL SERVICES

1. Cancer Control Is a Hospital "Selling Job," by *Oliver G. Pratt**

PARTICIPATION of a hospital administrator in this cancer symposium indicates that public health officers appreciate the need of a definite interest on the part of hospital administrators in the cancer program. This is a most healthful attitude and presents a challenge to those in the field of hospital administration, particularly those who have limited their responsibility to persons within the physical structure of their hospital.

There should be general acceptance of this broad concept of the functions and responsibilities of today's American community hospital. There are four aspects of the cancer program where, within this concept of a community hospital, the administrator may properly accept responsibility: lay education, operation of tumor clinics, treatment of cancer patients, and professional education and research.

The Massachusetts Department of Public Health has for many years stressed the importance of lay education by the creation of cooperative cancer control committees in each community. This program has been successful in Lynn, but unfortunately it has not done so well in many communities.

The public relations committee of the Salem Hospital, composed of more than thirty citizens, contains the vital elements outlined for a cancer control committee. It sponsors health talks by doctors, before groups, in the press, and over the radio. It interprets all functions of the hospital to the community, and it interprets the community to the hospital personnel.

Our first step is to sell the program to

our health and welfare leaders, for unless such key people are personally willing to accept such a health program, they cannot in turn interpret it effectively to others.

The hospital administrator can and should play an important part in the operation of the tumor clinic in his hospital. If a cooperative and understanding attitude prevails; if the administrator desires the tumor clinic to be part and parcel of hospital service; if he develops proper coordination of other departments with this clinic; if he provides adequate space, located properly in relation to needs; if adequate diagnostic facilities are made available; and if he helps to provide well qualified personnel, only then is he accepting the administrative responsibility which is essential for the success of the modern tumor clinic.

A hospital that provides the community with the diagnostic facilities of a tumor clinic must accept the responsibility for the treatment of patients for which that particular hospital is qualified. The care of ambulatory patients in the outpatient department is a rather commonly accepted function of the community hospital, and care in the hospital for the treatment of other than terminal cases must become a generally accepted function of the community hospital if it is to accept its full responsibility and if the community is to be properly served.

The accomplishment of this objective is not an easy matter. Unfortunately, the financial pressure on the charitable hospital

* Adapted from *Hospitals* 18:34-35, Aug. 1944.

is sometimes a limiting factor. Constant education of the community is necessary to obtain adequate community fund allotments, sympathetic understanding of public welfare agencies, and acceptance of hospital trustees for use of endowment funds if community hospitals are to provide this essential step in the cancer program.

Medical social service has been commonly accepted as a function in the operation of a tumor clinic and in the adequate follow-up of its patients. If the medical social service department of the hospital is charged with the responsibility of the medical social service work of the entire cancer program of the hospital, the cancer program will be on a much firmer foundation.

The medical social service department is, in many hospitals, the key to the success of the program. It has the responsibility of assisting in the lay educational program, it guides the patient through all tumor clinic contacts, it keeps proper relationships with the patient through all his hospital experience, and it supervises the follow-up of the patient—including assistance in meeting social needs through other welfare and health agencies and in providing or arranging for necessary hospital care beyond the scope of the home hospital and for convalescent, long-term, and terminal care.

In directing a comprehensive cancer program the hospital administrator must use all his skill and diplomacy. He usually does not have the educational backing of the hospital connected with a medical school. He must establish the level of the educational program with the cooperation of the medical staff and the nursing school. He must not accept the two com-

monly used terms of teaching and non-teaching hospitals, as all hospitals are teaching hospitals—there is only a difference in degree.

He should encourage the medical staff to rotate doctors assigned to the tumor clinic staff. He should insist that participation of residents and interns is an essential element in their training, and he should encourage nonstaff doctors to participate in the cancer program. He should insist that the nursing school utilize this program not only as a special field for instruction in basic nursing arts but also as part of public health experience, and in relation to the training in the concept of medical social service.

Cancer research, which is primarily the responsibility of the medical staff, is dependent upon medical records and adequate follow-up. The hospital administrator can do much to further such research by encouraging the weekly tumor clinic, the periodic teaching conferences, complete hospital care, and the proper utilization of social aspects, not only for the direct benefit of the patient but also for the teaching value that will result in pyramiding the effectiveness of the cancer program.

The administrator of the modern, American community hospital should be interested in the total cancer program. He should provide leadership and make properly available the hospital organization, particularly the medical social service department, and the physical plant, so that lay and professional education, the operation of the tumor clinic, and the treatment of cancer patients may be accepted as hospital functions and thus provide for the people of the community a program of cancer control that will meet the needs of all citizens.

2. Adequate Convalescent Care Is the Shortest Road to Health, by *Claude W. Munger, M.D.**

ALTHOUGH institutions for the care of convalescents are not evenly distributed over the United States, we have not neglected this phase of the treatment of the sick. For the many fine facilities we do have, we should be doubly thankful in this time of national trial.

The dislocation of members of the armed forces from their families, the migrations of workers to obtain defense jobs in distant localities, and the general disruption of the even tenor of peacetime life all add, unfortunately, to the problems of the sick patient who has left the acute disease hospital but who is not yet well enough to fend for himself.

The doctor and the social worker, in effecting a prompt cure of physical ailments and a ready adjustment of the personal and social problems that are so frequently the companions of illness, will find convalescent care needed by more patients.

Convalescent care in institutions is needed especially by the person who has no family or whose home, family, or finances are inadequate to the extent that he cannot obtain adequate care outside an institution.

The well-to-do patient seldom wants or needs institutional convalescence because he can provide for himself an environment suitable to prompt recovery after acute illness. That is why one seldom finds a convalescent institution that is self-supporting. With few exceptions, convalescent homes must have large sources of supplementary income if they are to give good care to those who need it most. The student of convalescence needs to appreciate this fact from the start if he is to understand the subject and be able to plan or administer institutions for meeting this definite community need.

Every patient who enters a convalescent home has already been ill and, in most instances, if he had any money at the onset of illness he has already depleted his finances in attempting to pay hospital and doctors' bills. It follows quite naturally that many patients can pay nothing for convalescent care, no matter how much they need it.

The number of communities in which the welfare authorities are willing to pay something for convalescent care for public charges is still far too small but is believed to be on the increase. There is need for education of these officials and of the appropriating bodies as to how often convalescent care "clinches the cure" and prevents relapses that are likely to result in expensive readmissions to acute disease hospitals. With the latter institutions as overcrowded as they have to be in many areas, the need for convalescent facilities becomes all the more urgent and could be provided at less financial outlay than new acute disease hospitals could be built. One may venture to hope that some communities will recognize this fact and start, in war time, a useful service that could remain a valuable postwar community asset.

By its very nature, the convalescent institution cannot stand alone. It must be closely tied in with the work of the acute disease hospital or hospitals whose patients it receives. It reaches its maximum usefulness when it is in active team-play with other organizations.

Convalescent institutions may be branches of individual hospitals or they may serve more than one hospital or related activity. In the New York area, examples of the first type are the Harkness

* Adapted from *Mod. Hosp.* 60:58-59, Apr. 1943.

Home of the Presbyterian Hospital and St. Luke's Convalescent Hospital, each of which functions as an integral part of a general hospital for acute diseases. The Burke Foundation and the Loeb Memorial Home are examples of convalescent institutions that accept patients from various sources.

While connection with but one referring hospital doubtless simplifies the problems of management for the convalescent home, the procedure is not without its disadvantages and is less conducive to efficiency in the use of beds. If there are several sources of patients, it is easier to keep the beds filled.

The convalescent institution's facilities should be so geared that it can accept patients as soon as they are able to leave the acute disease hospital. In certain homes, a patient is not eligible for admission if he still requires simple surgical dressings or if he needs to lie down for more hours a day than the home's regimen prescribes. This is regrettable, and I make a plea that the convalescent home so arrange its service that it can pick up the convalescent patient when he is ready to leave the acute disease ward.

Care must be exercised not to go too far in this adaptation to the general hospital's problem of clearing its wards to make room for new admissions, lest the convalescent home become a different type of institution, one in which people are sick rather than convalescent. However, lack of flexibility of admission criteria is reducing the usefulness of some otherwise excellent convalescent homes. In the stress of war, this should not be allowed to happen.

It is the general and proper custom that patients who relapse in the convalescent home and again need general hospital service are promptly readmitted by the referring hospital.

Convalescence presents a number of problems that are not regularly encountered with acutely sick patients in the parent hospital. In the first place, the patients are ambulatory, thus they have more contact with fellow-patients and with other people than is the case during their stay in the general hospital. The convalescent patient finds that he has a great many more personalities to which he must adjust his own personality and activities. He is no longer in the comparative cloister of a hospital ward but he must "get along" with others in the recreation room, the dining room, and the occupational therapy shop.

A patient may complain and, indeed, be uncooperative while in bed but in that horizontal state he is much less effective in disturbing others than, potentially, he can become when he is up and about. This explains why the convalescent home must exercise reasonable precautions against the admission of persons who might disturb other patients. Frank psychopaths cannot be retained, of course, but in milder situations a psychiatrist can often help the patient and the staff of the home so that the patient can adjust himself and receive the care he needs for his somatic disease.

Family interferences tend to be less in the convalescent institution, especially if it is in the country and not too accessible and if extensive visiting is discouraged.

Institutional spread of infection is another problem. It is easier to keep infection out of the convalescent home than out of the acute disease hospital, but once it gets started it is more likely to spread owing to the more frequent patient-to-patient contacts. In the convalescent hospital with which I am associated, an entire pavilion for children is being equipped with ultraviolet lights for air sterilization as a means of studying the efficacy of that fairly new

plan for reducing air-borne spread of upper respiratory maladies. Some excellent results have been obtained in schools by this method and it seems reasonable to anticipate similar, if less extensive, benefits with ambulatory convalescents.

Many institutions, being specialized, do not accept both children and adults. If they accept both, there should be well-segregated facilities for each.

The problems of race, nationality, and religion are likely to be accentuated in the convalescent institution. Most of these situations can be handled by intelligent management, however, and the need for convalescent care has no racial or sectarian barriers.

Except in a large institution, I would favor the maintenance of only one class of care. There would not be enough private and semiprivate patients to justify special facilities for them. A good grade of ward service will suffice for those who need convalescent care and will be accepted by the occasional person from the "private side" who wants institutional convalescence.

Location of convalescent facilities is a question for local determination. Certainly, the country is to be preferred, but there are successful homes located in crowded cities, too. The relative inaccessibility of a country location has been mentioned as an advantage. On the other hand, the transportation of patients by bus or car, over long distances, is not a factor if the home is situated on some desirable site near the referring institution.

Adjunct activities are important in convalescence, such as schools for children, occupational and recreational therapy, outdoor walks and the milder outdoor games, and well-stocked libraries to meet varying reader tastes.

A good dietitian and dietary service are prime necessities. Special diets, scientifically

prepared, should be readily available. The patient's special diet prescription, if he needs one, should accompany him to the convalescent home. The diabetic must suffer no relapse as a result of improper dieting during his convalescence. Gain of weight is often an important part of a successful recovery from illness. Food for the patients should be plentiful, the menus well-balanced, and the cooking good.

Medical care, of course, should be a continuation of that given in the parent institution. It is necessary that there be regular visits by physicians of sufficient frequency to give good medical supervision. Facilities for performing simple laboratory tests and even equipment for simple radiography are desirable. It is also desirable that the patient's medical record, or at least a full summary of it, accompany him to the convalescent institution, where progress notes are entered and the record is finally filed in the parent institution. This is easier to do when the home serves one hospital of which it is in effect one of the integral departments.

Both the professional and the lay staffs of the parent hospital should be constantly reminded of the work of the convalescent institution that serves it. Likewise, the staff of the home must familiarize itself with the peculiar needs and procedures of the referring institution. Without this, the proper team-play is less likely to be realized.

Convalescent care can be, and in fact is considered, one of the refinements of hospitalization. However, it is a necessary service if we are to perform our full duty to the sick, especially the sick who are underprivileged.

In this time of supreme national effort it is not merely important, it is imperative, that the sick be restored effectually and

promptly to a state of productive efficiency. Proper convalescence from illness should be accessible to all who need it. In this pe-

riod there should be no retrogression in the number and quality of our convalescent facilities.

3. The Chronics; They Belong in General Hospitals, by E. M. Bluestone, M.D.*

OUR concepts in the field of hospitalization have thus far adjusted themselves to the call of urgency only. It is for this reason that the scientific facilities at our disposal are concentrated, and continuously elaborated, for the exclusive benefit of the acutely sick patient. Thus we have what we proudly call the "acute general hospital" and we confer upon it the best that money—and science—can offer. Indeed, we associate our best medical research laboratories with this type of hospital, and use it as rich pasturage for raising and sustaining the rank and file of practitioners, as well as the scientific elite of the profession. We favor these hospitals in our university affiliations, and rightly claim for them a high place in the organization of modern society.

Emphasis responds to the call of urgency and is relaxed in proportion as this urgency is reduced. The patient suffering from long-term disease literally recedes into the distance, as far as the planners are concerned, and he is left to do the best he can with only food, shelter, and clothing to sustain him. The long-term patient, who is striving toward the convalescent stage and still requires intensive medical care which only a general hospital can give, is at our doorstep. In the definition of urgency lies one of the important clues to the solution of his problem. We hope the time is not far off when no distinction will be made between patients when we plan for their care, so long as they require intensive medical care in a hospital. The hospital problem with our returning veterans will be a problem in long-term hospitaliza-

tion. The short-term episode was completed in field hospitals within the sound of artillery. There are no such compelling reasons for the transfer to the rear of a long-term civilian patient. As for him, the greater his span of life the greater will be his collective need for long-term hospital facilities.

Unfortunately for the long-term patient, the tendency of most people is to shy away from the uninteresting in life, and from unpleasant clinical conditions which take a comparatively long time to overcome. No doctor enjoys contemplating his clinical failures day in and day out. With changing concepts of social service and social security, and with continuously advancing medical possibilities, our point of view is beginning to include those clinical types which have thus far suffered neglect at a time when they needed us most. It is the exceptional person who is moved by the less urgent but farther-reaching stimuli. In this class belong the scientist (for our purpose, the physician), the philanthropist (in this case, the hospital trustee), and the social worker generally. There is no denying the priority of the claim of the short-term patient, but our plan for the long-term patient is the measure of our philanthropy in the last analysis.

The humanitarian may not draw artificial distinctions between acute and chronic illness in hospitals, so long as the need for a bed continues during illness. The long-term patient has, indeed, a powerful claim on the attention of the medical scientist,

* Adapted from *Trained Nurse & Hosp. Rev.* 114:17-20, Jan. 1945.

for he is in the midst of a luckless clinical situation which is, however, of a challenging nature. To exclude him summarily from the facilities of the best type of hospital in the world at a time when he needs them most is a violation of the Hippocratic oath and an affront to all decent standards of medical care. It will not do to argue that the patient had better go because this or that member of the attending staff has lost interest in him, since we are familiar with a clinical manifestation, already in evidence in the "acute" general hospital, which is known as selective interest. The clinical problem which does not intrigue one scientist may be attractive to another. This is, indeed, the basis of specialization, and of the inventions and discoveries which have marked medical progress.

No patient should be transferred out of the "acute" general hospital until certain pointed questions are answered. Will he be better off elsewhere? If so, acutely sick patients belong there too, because in that medical Utopia will be found all scientific facilities, including those which are expected to break the stalemate which so often prolongs the period of hospitalization.

The poor farm, the almshouse, or the "home for incurables" with a ready-made and hopeless prognosis which stares the long-term patient in the face at the time of his transfer and forever after is not a haven for such patients.

Are we transferring him because, having been pauperized by his illness, he can no longer make a satisfactory financial contribution to the hospital for his care? If so, it will be more expensive for the taxpayer to maintain him at a distance where everything that the "acute" general hospital possesses must be reproduced, besides additional facilities for his particular care, if we want to cure and rehabilitate him.

Is the local government careless of the rights of its citizens who are sick with a long-term illness when it neglects to take up at least part of the financial burden of maintaining them in decent hospitals which they are otherwise compelled by their poverty to leave? If so, the remedy is obvious. Are we, in the "acute" general hospitals, permitting the social aspects of the case to undermine the medical aspects, at a time when the two should be understood as an indivisible? If so, we are shutting our eyes to our greatest opportunities in the cure and rehabilitation of the patient, for the most illuminating and longest-lasting of these are to be found at the bedside of the long-term patient.

Are we transferring him because we feel that our resources (financial and scientific) being limited, they must be concentrated and applied intensively for the exclusive benefit of the acutely sick patient? But this would be a response to the call of urgency only and charity is more farsighted and made of more thoughtfulness and generosity than that. The philanthropist, the scientist, and the social worker are noted for their ability to see beyond their own noses. Why, then, is the long-term patient in the blind spot of their vision? The difference between the best medical care (in the "acute" general hospital) and the care that is now being given to these patients (in isolated and segregated institutions) is not excessive if the long-term patient is retained in a separate section of the general hospital.

Objections like these to the transfer of the long-term patient can readily be met by removing from our consideration such criteria as age, duration of illness, economic condition, prognosis, and curability when a patient applies for admission. Seldom will a hospital give as its reason for the transfer of such a responsibility at such

a time, the loss of interest by its visiting staff, or the loss of the financial contribution of the patient. You do not see our institutes for medical research balancing the time factor and the economic factor against the scientific factor.

Instead of one bed in the "acute" general hospital (I am not now speaking of the type of institution which claims to be nothing more than a first-aid station) and another in the almshouse far away from all sources of real friendship for the patient, there should be two beds in the hospital. To complete our plan, the almshouse and its blood-brothers in the institutional field should be modernized to provide decently for the custodial type of patient, the one whose disease has burned itself out, who is static beyond question and who requires the sympathetic care of an attendant in a friendly home to take care of the residue of an illness which has gone after leaving its permanent scar.

Under such a plan the long-term patient can be treated as overflow in the general hospital and cared for in separate wards or pavilions where he can enjoy the immediate benefits of a comprehensive consulting service in all of the diagnostic and therapeutic specialties represented in a well-equipped hospital. Patients whose illnesses take a long time to heal and patients whose illnesses take a long time to kill must never be subjected to the handicap of distance in addition to the handicap of time, for this would be the exact antithesis of every standard of scientific care.

There are those who fear that, in a mixed group of short-term and long-term patients integrated in this manner, interest, energy, and time will gravitate to the more acute, more interesting, and more dramatic clinical types, to the utter neglect of the others who take such a long time to respond to treatment and who are so un-

spectacular. But even a diagnosis in such cases is seldom a simple matter because of the time element, which often produces complications in wide variety. There is no such thing as a long-term patient suffering from a simple textbook clinical condition.

The visiting physician in the voluntary hospital will spend a limited amount of time on patients of his own choosing and pass the others by. He can scarcely do more with private practice and other hospital appointments to maintain. We can, however, improve his working capacity and make his hospital activities much more attractive than they are today. Long-term patients are under scientific control over long periods of time and are therefore excellent material for systematic study. If, then, we could provide the medical staff with investigative facilities in laboratories to enable them to develop their talents, we would be going a long way toward the solution of the problem of the long-term patient, as well as of the medical scientist himself.

The distribution of medical care for patients in hospitals follows the pattern laid down for nursing care, and that depends on urgency. The difference between general-duty, floor nursing and special-duty, individual nursing, is the difference between medical care for the less urgent and medical care for the more urgent. Moreover, selective interest, which receives encouragement in various ways, tends to overcome the dangers of an unreasonable shift in emphasis. The equitable distribution of the medical staff among patients in hospitals, whether short-term or long-term, and their assignment in accordance with their scientific preferences, can be re-enforced by establishing a full-time paid staff in the executive clinical positions. In the social security movement of our

day there is an opportunity for the development of a more humane program for the care of the long-term patient. Let me cite examples.

Government, in all of its levels, must subsidize the sick without asking them how long they intend to be sick. It will be argued, of course, that philanthropy should not be relieved of its contribution, since it is desirable to preserve the voluntary principle in hospitals. This, however, is a matter for the hospital trustee to decide. His contribution to the maintenance of his hospital should be substantial, and sufficient to keep it free from the nightmare of a red-figure deficit, since this is inherent in the terms of his trusteeship, but, obviously, government must step in and do what others cannot or will not do.

There are, in fact, additional sources of income to tap. Our group insurance plans have taken firm hold and are spreading their benefits over large areas. It only remains to extend and perhaps increase their contribution to cover the needs of the long-term patient. The financial contribution to hospital and doctor, as well as to patient, from this source is already enormous and it is already contributing handsomely to the continued maintenance of long-term patients in general hospitals over longer periods of time. As economic conditions improve and the standard of living rises, with its multiplicity of comforts for everyone, it is inconceivable that the long-term patient will not benefit in equal measure. A greater awareness by the public official, philanthropist, Blue Cross expert, and physician of the needs of the long-term patient and the many possibilities for a wholesome solution of his problem, should bring constructive relief at an early date.

Under such an integrated plan, the true medical center reduces its criteria for admission to the point where the safety and

comfort of its patients, as well as their medical needs, are the only considerations. Such a hospital center is able and willing to study the natural history of disease in all of its aspects, short-term or long-term, in a group of buildings which may be set apart physically in neighborly proximity but which function under an integrated social plan. This is the way to educate a generation of physicians, nurses, and social workers in the care of the sick. Interest in the long-term patient is the acid test for anyone connected with hospital service. Supplemented by a constructive program of home care for those patients, short-term or long-term, who do not require intensive medical treatment in a hospital bed, we could give every patient of our best and ultimately provide them with an opportunity for rehabilitation, which is more profitable because it looks to the future as well as the present.

There is a dwindling minority which still feels that the uninteresting long-term patient is better off when he is divorced from the general hospital and placed in an independent institution for chronic disease (of which, by the way, there has been only one of high scientific standard which philanthropy has been willing to establish in all the world) even though it is relatively more expensive and more difficult to maintain him that way. But why should anyone believe or expect that the independent institution will be able to do as well or better for such patients than the general hospital with its favorable location, nearness of medical services, and completeness of facilities?

Some people think that, if the long-term patient may be neglected as a result of his integration within the general hospital, he might as well be neglected at a distance, but this is based on false premises. When you have a difficult clinical condi-

tion before you, staring you in the face all the days of your medical life, you will at least try to do something about it, even though the proportion of successes will not be as great as you are accustomed to find in the acute section. Unlike the long-term illnesses, acute cases often end spontaneously because they are so often self-limited. The long-term patient, at a distance from the fountain-head of medical authority, is a reproach to science and philanthropy alike.

We are moving forward rapidly these days and the war will undoubtedly teach us new lessons in the field of public health as well as in statesmanship. We shall see long-term disease in returning soldiers, who already passed through the short-

term phase on the battlefield, and who will expect us to repay them for their sacrifice. They should be offered nothing less than the integrated program which is here outlined. We are living longer now than ever before, as a result of our own efforts in the field of preventive and curative medicine. Long-term disease is more in evidence and has already emerged as an acute problem, comparable to the problem of the infectious diseases in a former generation. All the more reason for revising our principles and practice of hospitalization. When this is done we shall live still longer and continue to find newer and better ways of achieving comfort, good health, and security. We should strive for nothing less in our eternal course forward.

4. Dental Service in Hospitals, by Benno E. Lischer, M.D.*

IN THE recently published *Manual on Dental Care* prepared by the Council on Professional Practice of the American Hospital Association it is stated that a modern hospital should provide "complete facilities for the efficient and economical treatment of the sick," and that it should "serve as a center of instruction for the prevention of disease."

In the light of our present knowledge of disease processes it is difficult to believe that these basic purposes of a hospital can be fully achieved unless dental service is also supplied to its patients. It is admitted that dental therapy has been "widely recognized and seldom employed" in hospitals. Perhaps the autonomous development of dentistry is largely to blame for deflecting its service to that borderland we commonly call luxuries, where it has too long remained.

The Foreword of the *Manual* states frankly that there is a "growing recognition upon the part of health authorities

and the general public of the far-reaching effects of dental conditions, as they relate to infection, function, and appearance," and that it "is rapidly making it obligatory for a first-class hospital to consider an efficient dental department as an essential part of its organization." The *Manual*, therefore, recommends that dental care "should find a place with the other special departments of the hospital."

A patient's first encounter with a dentist all too frequently is for the relief of pain. While this is an essential service and very important to the patient it is, nevertheless, a very elementary first-aid measure in the opinion of the dentist. In other words, the relief of pain is merely an adjunct of emergency dental care and usually an indication that the patient has been very neglectful in matters of oral hygiene. Many dentists could report hundreds of case records from their private practices showing that individuals who were placed in their

* Adapted from *Hospitals* 17:94-96, Jan. 1943.

care during early childhood and who availed themselves periodically of good dental treatment reached maturity without the death of a dental pulp and without the loss of a permanent tooth.

Before discussing the principles and technical details of dental service in a modern hospital it may not be amiss to first consider its value and purpose. In Chapter I of the *Manual* an outline of the objectives of a dental department is presented, which I shall use as a guide.

The elimination of oral sepsis. Oral sepsis is so common and its systemic effects so widely recognized that its eradication no longer requires vindication.

Dental origin of systemic disease. As our newer knowledge of bacteriology and pathology was applied clinically with the aid of roentgenology, it became clear that certain oral lesions may cause systemic diseases and that some of the latter not infrequently exhibit definite oral symptoms. In university teaching hospitals where medical, dental, and nursing students receive instruction in the principles of medicine and surgery, the relationships of oral and systemic diseases should be presented to these classes.

The convalescence of many patients can be shortened by good dental service and their hospitalization may thus be decreased.

Fractures of the jaws, which undoubtedly have increased in number in recent years, would be benefited by a consultation with a staff dentist. Normal masticatory function would be assured if the dentist would check the occlusion of the teeth in such cases.

The expectant mother should receive complete dental examination and care, and instruction on the importance of oral hygiene for the infant. Adequate nutrition of the mother and proper feeding of the infant means much in promoting the

sound development of the deciduous and permanent teeth of the child. Such measures will materially reduce the incidence of dental diseases.

Promoting cooperation between the medical and dental professions constitutes another very desirable development and usually is more certain to follow when dentists are asked to share the responsibilities of caring for the health needs of the sick.

The hospital personnel usually requires the same periodic dental examination and treatment as do other individuals. In those hospitals where the dental staff and its facilities are adequate this service to the hospital personnel should be included.

Research in oral diseases and the statistics of medical, dental, economic, and health problems of hospital patients is pressing. A dental department can make important contributions to these subjects.

In planning dental service for hospital patients it is desirable to adopt definite minimal standards, depending on the hospital's size, needs, and available means. It is perhaps best to arrange this service in several categories in the order of need and importance.

1. *Examination and diagnosis.* Dental inspection of every patient should be regarded as necessary and should always be conducted by dentists. Physicians do not have the necessary instruments and are not trained to diagnose early dental caries. Plainly visible dental decay, which even the patient may recognize, is a late stage which usually requires radical and expensive treatment but is not always the menace to health as is some other form of oral disease. The routine use of roentgenography with so-called "bite-wing" films of all the teeth present is an essential detail of such examinations, otherwise many areas of decay are missed. The recording of the findings in the patient's case record

is also necessary. Present-day dentistry is much concerned in the prevention of advanced tooth decay and the extensive restorative dental service which this requires. The many advantages which can be gained from early periodic dental examinations should be stressed by every institution which provides treatment of the sick and aims to be a "center of instruction for the prevention of disease."

2. *Emergency service.* This embraces the relief of pain, the stamping out of infection of dental origin, the extraction of teeth which are beyond preservation, the treatment of numerous acute and chronic oral diseases, dental prophylaxis, and instruction in oral hygiene. Dr. Russell L. Cecil of Cornell University has said: "Dentistry occupies one of the most strategic positions in the whole medical field, . . . particularly to that most important department of medicine, namely, the infectious diseases."

3. *Restorative dentistry.* This requires considerable equipment and time, and usually adds materially to the cost of the service. Many hospitals are not able to provide this portion of adequate dental care. Certainly the small hospital with a small dental staff and only one dental intern cannot consider complete restorative dentistry as a practical undertaking. On the other hand, many large hospitals are located in our large cities where dental schools with good dental clinics as well as many capable practitioners are available. Many of these hospitals prefer to utilize these resources. Restorative dentistry is thus a phase of dental care which must be determined in large measure by the available means and needs. In ideal instances the addition of this more extensive care will provide for complete dental service to the entire staff and nonprofessional personnel.

Other aspects of standards relate to the quality of the dental personnel. As outlined in Chapter II of the *Manual*, every staff member should have had adequate training and should possess professional integrity and cooperative enthusiasm as well as breadth of vision. In many small hospitals, because of physical and financial limitations, it is not feasible to establish a dental department. It is recommended, therefore, that it "will be an advantage to provide at least a competent dental consultant."

Regarding the personnel and organization of a dental department it is considered advisable that a dentist-in-chief, two consulting dentists, four associate dentists, and at least one dental intern be appointed. Two interns, each appointed for two years in alternate years, the senior intern serving as resident, are preferable and will assure a better service.

The dental resident should be responsible for the dental service rendered the patients; he shall notify the assigned member of the visiting staff of any important changes in the condition of patients and be responsible for all dental instruments and equipment and for the dental portion of all patient case records. He should interpret all dental roentgenograms, check every dental diagnosis, and determine when a patient is to be discharged from the dental service. Dental interns should attend the medical and surgical conferences of the hospital staff and present cases exhibiting oral lesions at the pathological conferences. They should also be accorded the opportunity to assist in the oral surgery service and to take the course offered in anesthesia.

The equipment of a dental department will vary with the scope of the service offered. If possible, a central location is best and the allotted space should include a

waiting and retiring room as well as a treatment room. Good light for treatment and operative procedures is essential and thought should be given to possible future expansion of the department. If the service is to include prosthetic restorations, a technical laboratory has to be provided. In some hospitals it may be necessary to set up a special x-ray unit in the assigned rooms. Equipment for "non-pressure sterilization of instruments" should also be provided. Pathological laboratory service should be available and in a large institution a special pathologist is desirable. For the small hospital it is recommended in the *Manual* that "a mobile dental cabinet containing required instruments and equipment" be provided, which will give some "measure of service." Such equip-

ment can be located in the departments of oral surgery and otolaryngology.

The *Manual* also contains chapters describing the work the dental intern should be able to do, the essential items which dental service records should contain, the nomenclature to be used, the routine procedure of dental care, a comprehensive equipment list, and an inventory of the useful drugs and preparations for a dental clinic. Appendix III comprises a list of approved drugs "compiled by the Formulary Committee from the replies received from the questionnaires submitted to dental clinicians in hospitals throughout Canada and the United States of America." These recommendations will, doubtless, be of considerable value to all staff members and committees.

5. The Future of Psychiatric Care in Hospitals, by Karl Menninger, M.D.*

WE ARE in the midst of a revolution in the status of psychiatry, a quiet, peaceable revolution but a revolution nonetheless. From an isolated, esoteric specialty practiced for the most part within state institutions situated in remote sections it is on the way to becoming the most active, the most populous, the most demanded, the most immediate of the medical specialties.

From an institutional specialty psychiatry is becoming primarily an outpatient specialty; from a branch of medicine separated from both medicine and surgery it is becoming closely integrated with both; from being a discipline applicable to the exceptional case it is rapidly becoming the most challenging field in medicine.

Whatever the reasons may be, at least one third of the patients with whom the physicians of the Army, the Navy, and civilian life must deal today are psychiatric patients. If one includes those cases in which emotional factors determine the oc-

currence of physical symptoms one might almost double this figure.

To complicate matters it is certainly not a secret that we have an insufficient number of psychiatrists. It has been conservatively estimated that we need 10,000 more psychiatrists immediately, to say nothing of additional psychiatric nurses, psychiatric social workers, and psychiatrically oriented clinical psychologists. At present it is optimistic to say that *perhaps* 200 young physicians are receiving formal psychiatric training; how this number is to be multiplied by 50 and where such physicians are to get their training and who is going to train them are questions that may well give us pause; they are certainly giving us concern.

Psychiatry, originally exclusively a hospital "specialty," was almost synonymous

* Adapted from *Mod. Hosp.* 64:43-45, May 1945.

at one time with the state hospital care of committed "insane." The problems of psychiatry were those of certification, commitment, classification, custody, parole, and discharge.

Later, a few therapeutic measures were introduced and the consideration of selection of patients for such treatments and the application of these treatments enlarged the program slightly. But, in the main, the old psychiatry never put much premium on treatment. To do it justice one should add that it did put a great deal of emphasis on diagnosis, on individual study, and on attitude.

Psychiatry today has gone far beyond the institutional phase and, hence, far beyond the type of training required in too many "approved" hospitals. Psychiatry has become complex. Its extramural applications are far more numerous in point of patients and far more complicated in point of social relationships than was the case with exclusively hospital psychiatry. Outpatient psychiatry now dominates the field and its emphasis upon treatment has already begun to revolutionize inpatient psychiatry.

One of the many things for which we must thank Sigmund Freud, who first introduced an effective systematic psychotherapy, is that psychiatric treatment began to be thought of as applicable to ambulatory noncommitted patients. Ernest Southard was probably the first to put this into practical application in the form of an outpatient department.

Child guidance clinics, mental hygiene clinics, rehabilitation clinics, and other euphemistically labeled agencies for outpatient psychiatric treatment have multiplied in the wake of psychoanalytic, private practice outpatient psychiatry, until today the psychiatrist is no longer primarily the guardian of committed patients

but the counselor of many patients for whom commitment is unthinkable.

The extensions of psychiatry in the directions of cooperation with the general practice of medicine and surgery, of industrial psychiatry and personnel work, of mental hygiene counseling in colleges and high schools, and of interpolation with educational projects generally—these and other extensions are all extramural functions for which institutional psychiatric training provides an inadequate background.

The problem of the psychoneurotic is in every way more complicated, extensive, and difficult than is the problem of the psychotic and, in contradistinction to the attitude of the older schools of thought, the psychoneurotic is now a recognized problem for psychiatry. Private psychiatric consultation offices have been opened in most large cities.

All this now becomes a hundred times more important when the country is faced with the return of psychiatric disabilities from the Armed Services at the rate of a thousand per day, most of whom, if seen at all by psychiatrists, will be seen as psychiatric outpatients. What it means is not that hospital training in psychiatry should be abandoned or that it should cease to be the basic feature in the training of the young psychiatrist. This training must be so organized and directed that the resident learns in the hospital not only what to do for hospitalized patients but the more difficult question of what to do for and with outpatients. Hospital training can be formulated with this objective; for the most part it has not been.

Outpatient diagnosis must be made with a more skillful precision, at greater speed and under greater difficulties than is true in the case of hospitalized patients. Outpatient treatment programs are different

from those for hospital patients and must be offered and carried out in a different way. The management of the relatives of committed patients, difficult as it often is, is certain to be less difficult than the handling of, let us say, the parents of a problem child.

All of this is by way of prelude to an answer to the question: What is the psychiatric hospital of the future to be? Is it to be a custodial institution, an institution providing temporary care, a combined inpatient and outpatient clinic, a teaching hospital? Is it to be located in cities like Ann Arbor or cities like Danvers? Is psychiatry an urban specialty only? Is it a subject that must be kept under the aegis of universities? Is it to be completely controlled by state subsidies and state politics? Is it to provide for children, for adolescents?

These are only a few of the questions that enter into the picture. Actually we are now so overwhelmed by the multiplicity of questions and the large number of unknowns that it is almost impossible to think specifically about the form of the future psychiatric hospital. Great mistakes have been made in the past by energetic planning boards which felt that it was only necessary to multiply previous experience by some breath-taking mathematical factor in order to make possible enormous colonies, beautifully landscaped and euphemistically labeled psychiatric hospitals. The one thing we are sure of at the moment is that the psychiatric hospital of the future will not be anything like that.

Another thing we feel sure of is that some of the psychiatric hospitals of the future will not be so detached from the hospitals now regarded as strictly medical and surgical. Psychiatry has its place not only in medicine and in surgery but in every specialty of medicine. Psychiatry is

in part a point of view, an aspect of the patient and an aspect of disease which cannot be neglected in any specialty and, therefore, in any hospital. Every hospital must be equipped to do some psychiatry. This, however, does not make it a psychiatric hospital.

Psychiatry is moreover obliged to face the problem of the long-term care of many chronically ill patients who cannot return to their homes and who cannot live in society. This mass custody of the inadequate, the incompetent, the incomplete personalities is another problem within psychiatry that requires a type of hospital planning very different from that of the medical-surgical-psychiatric unit.

A special hospital is needed for psychiatric patients who do not get along well in a general hospital but who are not severely or chronically ill enough to be transferred to custodial institutions. In this field I have the most intense interest. Such hospitals must be separate from custodial institutions and, in my opinion, separate from surgical hospitals or medical hospitals dominated by surgery.

The psychiatric hospital of the future will certainly be built with far more emphasis upon those factors which make for a quasi-normal type of social existence than upon a series of cubicles or cells containing beds and bureaus. To be sure, the psychiatric hospital must be prepared to care for patients who cannot take advantage of all of the privileges of social life and of comfortable physical existence but these constitute a minority.

The private sanitarium of a hundred years ago had certain advantages which the psychopathic hospital created seventy-five years later completely lacked (and lacks!). One additional acre of usable playground, one additional ping-pong table, one additional room for a tea party are of

more advantage in the hospitalization of the mentally ill of this type than is an extra hydrotherapy unit or extra width in a corridor. The trouble is that all architectural planning and construction have to be done in advance and are already out of date by the time the building is finished. Psychiatry is growing that rapidly. No one knows at the present time just what the structural form of the psychiatric hospital of the future, even of the near future, should be.

What we do know is that much more important than its structure, its equipment, its location, more important even than its affiliations (which I would not minimize) is the spirit that prevails in it. The spirit of sympathetic understanding of the realities of psychological forces and psychological suffering can operate in the oldest hospital and can be absent from the newest and best equipped.

Dr. Benjamin Rush, 135 years ago, recommended to the board of managers of Pennsylvania Hospital "that certain kinds of labour, exercise and amusements be contrived for them [patients] which shall act at the same time upon their bodies and minds. The advantages of labour have been evinced, in foreign hospitals as well as our own, in a greater number of recoveries taking place among that class of people who are employed in the ordinary work of the hospital, than in persons elevated by their rank in life above the obligations or necessity of labour.

"Exercise and amusements should be the substitutes for labour in such persons. The amusements should be Swinging, Seesaw, riding a hobby horse, or in what are called flying Coaches, playing at Chess and checkers, listening to the music of a flute, or violin and in making short excursions into the City, or Country. Perhaps kinds of labour might be discovered for every

class of mad people, of such a nature as to afford a small addition to the funds of the hospital."

In these 135 years occupational therapy has not made the progress it should have. It is still regarded by too many doctors as a device for occupying the patient's time. The personality of the therapist is still considered unimportant enough to permit a low wage scale to prevail and the whole field is considered too unimportant to merit research or special training on the part of young psychiatrists.

To some extent the same could be said of other types of therapy which are an integral part of the modern psychiatric hospital, such as recreational therapy, educational therapy, music therapy, and bibliotherapy. All this is to say nothing of the field of psychotherapy for which almost no psychiatric hospital in the United States is at the present time properly equipped, in spite of the fact that we regard it as our most important and effective tool in psychiatric treatment.

The modern psychiatric hospital should provide opportunities for the patient to extend his education while he is under treatment. This is particularly important for the young person who needs guidance in choosing an occupation, but it is important for all ages.

Another requisite is that the hospital must be related to the community in such a way that there is a method of returning the patient to normal living through progressive steps so that he is followed outside the hospital for a sufficient period of time to stabilize his recovery. Social workers will work with the psychiatric staff to bring about flexible changes in the patient's environment as he is able to take a job, to enter school and, generally, to participate in community activities.

Finally, the use of the psychiatric hospital as an educational institution will certainly be extended. Education of physicians, nurses, social workers and special therapists, psychologists, clergymen, pa-

tients, and the general public is a part of the proper program of the modern psychiatric hospital and the need for and furtherance of all of them will increase to an insistent crescendo for the future hospital.

6. Tuberculosis Control in General Hospitals, by *Robert G. Bloch, M.D., William B. Tucker, M.D., and Arthur C. Bachmeyer, M.D.**

THERE seems to be no valid reason why general hospitals and clinics should not include the diagnosis and care of pulmonary tuberculosis in their functions. The commonly recognized inadequacy of climatic treatment and the advances of surgical therapy have in recent years emphasized the necessity to centralize the treatment of the disease in urban communities rather than in the outlying districts of the country.

The justified tendency to shift a large part of phthisiotherapy to the city could be helped decisively if facilities were available in all or most of the general hospitals. This would also facilitate the teaching of tuberculosis to physicians, medical students, and nurses, which is one of the urgent educational needs now as it was nearly forty years ago.

In 1906 Sir William Osler suggested "that every general hospital should for the sake of students take in several cases of early tuberculosis, just to show the students, doctors and nurses what can be done with early tuberculosis. . . . There is a very definite function of the general hospital in this connection. The second important function of the general hospital is a tuberculosis dispensary; every large hospital should have, in connection with its dispensary, a tuberculosis department. This can very easily be established and the advantages are enormous."

There has been little favorable response to Sir William's suggestion so far. Indeed,

there still is much reluctance on the part of general hospitals to accept patients with previously known and unconcealed diagnosis of pulmonary tuberculosis. Except for the large public institutions with facilities separately built for that purpose, very few hospitals will accept tuberculosis of the lung as a disease to be treated within their walls.

In a recent survey¹ the following two questions were asked of the private hospitals in the metropolitan area of Chicago:

1. Do you admit patients with pulmonary tuberculosis in your hospital for treatment of that disease?
2. Do you admit patients with known pulmonary tuberculosis in your hospital for treatment of other conditions?

Of the 73 hospitals which replied, 5 answered Question 1 with "Yes," 68 with "No"; 25 replied to Question 2 with "Yes" and 48 with "No," or with comments which amounted to a negative reply. There were comments such as "only emergencies" or "only in unusual cases for short periods of time under special circumstances" or "what recourse does a hospital have if doctors do not report or do not know of pulmonary conditions?" They clearly indicated that hospital administrators by no means consider the admission of the tuberculous an asset to hospital service and that many indeed took the questionnaire for

* Adapted from *Hospitals* 18:63-70, Nov. 1944.

¹ Courtesy of the Chicago Hospital Council.

an attempt to uncover the admission of tuberculous patients as an administrative deficiency.

In a community with an adequate number of beds available in tuberculosis hospitals and sanatoria this attitude does not hamper phthisiotherapy, although many physicians in the past have thus been deprived of facilities to hospitalize their patients under their care; with the declining therapeutic importance of the climatic factor and with the increase of surgical treatment this has often been annoying. In communities with inadequate facilities for the treatment of tuberculosis it has been felt as an unjustified failure to exploit all the available space, especially at times when large numbers of general hospital beds were vacant for lack of other patients.

The reason for all this is the fear of infections with which nontuberculous patients housed under the same roof and hospital personnel might be threatened; in other words, hospital authorities derive a feeling of security for the individuals in their care and employ from the fact that they refuse the admission of tuberculous patients. This feeling would be justified if the refusal to accept the admittedly tuberculous could really lead to a hospital atmosphere free of tubercle bacilli, but that is not the case.

In recent years, since we have become more suspicious of the possibilities of obscure tuberculosis, since our distrust of a negative history and physical examination has been steadily increasing, it has become evident again and again that all hospitals will have patients with unknown and open pulmonary tuberculosis in their rooms and wards at all times, however little the ailment for which they were admitted may have to do with pulmonary disease.

Only universal x-ray examinations of the chests of all patients regardless of the

nature of their complaint previous to their hospital admission could lead to a far-going exclusion of the tuberculous. Such routine examinations in clinics and physicians' offices are highly desirable as a means of recognizing unknown tuberculosis for the purpose of tuberculosis case finding and treatment. They have been in use in the University of Chicago Clinics and at the affiliated Provident Hospital for some years, and with most beneficial results.

As a method of avoiding contamination, however, they are only part of a necessary effort. As a means of keeping tuberculosis out of hospitals they would lead to an increase in the rejection of patients, injurious to their health and altogether unnecessary.

Many patients will always enter hospitals without a previous examination, and it is out of the question that they be asked to leave if tuberculosis is discovered after their hospital admission. Even if in the majority of such cases a discharge could rightly be asked for and effected without immediate harm to the patients, where should they go for treatment? Tuberculosis hospitals could hardly be expected to engage in the treatment of all extrapulmonary conditions, but even if that were the case a great many communities and districts are not at all or inadequately equipped with facilities for the treatment of only tuberculosis, or the available institutions are unsuitably located and not staffed for the purposes of general medicine and surgery.

Since the incidence of nontuberculous and extrapulmonary disease in tuberculous individuals is about the same in each age group as in the nontuberculous population, it stands to reason that general hospitals should accept the necessity of housing tuberculous patients. The danger of infec-

tion does not arise from accepting them but from hospitalizing them unrecognized as to their pulmonary infection, as has been the unavoidable fact up to now.

Proper isolation by simple measures in one wing or only part of one floor of the building is easily accomplished. At the University of Chicago Clinics this has been done during the past twelve years. In accepting tuberculous patients in limited numbers and of a variety of lesions and stages which suit our purposes, it certainly has not been our experience that our hospital differs from others by a greater danger of spreading tuberculous infections, but rather by the opposite.

General hospitals unavoidably will have tuberculous patients in their rooms and wards at all times. Through knowing who and where they are they will avoid the most acute danger of contamination, which always arises from the case where neither the distributor nor the recipient (or at least the latter) is aware of the presence of the disease.

Isolation concentrates and simplifies the protection of the medical and nursing staff and other employees against infection from the patient. However, to make tuberculosis control in a general hospital complete, physicians, nurses, and attendants have to be protected not only against infection from patients but from each other, and patients have to be guarded against infection from members of the personnel as we shall see.

Nearly fifteen years ago when as a first step in institutional tuberculosis control the University Clinics introduced x-ray examination of the chest by roentgenograms for all nurses, the supervisor of the operating rooms was found to have bilateral active tuberculosis. The nurse in charge of the sterilizing room for the newborn had active tuberculosis. Neither of the women

was aware of her condition. Stereoscopic roentgenograms were then made obligatory for all physicians and nurses on taking employment, with reexaminations every year for those on general duty and every three months for the personnel of the tuberculosis division.

Other personnel, especially employees not participating in the care of patients, were then still exempt from this routine. About a year later positive sputum findings began to be reported in patients where neither the clinical nor the x-ray findings were suggestive of tuberculous infection of any sort. Eventually records of about a score of patients had accumulated where automatically a report had been made to the health department because of the presence of tubercle bacilli in their sputum.

The clinical findings in most of these patients had suggested upper respiratory or for the most some bronchitic involvement. The suggestion of the staff of the chest clinic that an x-ray examination of the chest of all the members of the laboratory staff be made was resented by that staff and rejected by administrative officers as undue pressure upon employees.

Eventually and by devious means, it was found that the laboratory worker in charge of sputum tests, a plump and healthy appearing girl, had extensive cavernous tuberculosis with an almost pure culture of acid-fast bacilli in her sputum. She had infected the patients' specimens. The embarrassment of apologizing to the patients in question and of revoking the reports to the health department had a most beneficial effect. Roentgen examination of the chest has since been obligatory for all staff members and hospital employees and has been gratefully received by almost all of them.

Experiences like this may seem extraordinary. We believe they appear so only because the curiosity to uncover tubercu-

losis in hospital personnel so far has not been great. There can be no other cause for the hesitation on the part of the general hospital to put its house in order with regard to tuberculosis but inertia and the fear of administrative commotion which at times seems to be greater than that of infection.

Yet the problem should be approached with the intention of freely admitting tuberculous patients for the treatment of any condition including pulmonary tuberculosis. A painstaking design and observance of rules governing the diagnosis and isolation of the disease in patients and employees will make this possible. There is no reason why all this cannot be accomplished by voluntary efforts and without legal enforcement.

The contribution which outpatient departments can make in the fight against tuberculosis is even more conspicuous than that of the hospital. The organizations concerning themselves with the fight against tuberculosis have often pointed out that besides the efforts of public and private health authorities, it is the practicing physician's office which should act as one of the chief case-finding agencies.

If so much tuberculosis can be uncovered among the seemingly healthy population, it stands to reason that more should be found among those who seek medical aid because they feel sick. Since the disease thrives under so many disguises not always easily recognized as the result of pulmonary involvement and since it so often coexists with unrelated conditions which bring the patient under medical care, it follows that in private practice and in general clinics—public as well as private—much pulmonary tuberculosis must go unrecognized unless all patients are subjected to a roentgen examination of the chest.

Fluoroscopic examinations among the clinic patients of the University of Chicago Clinics and of the affiliated Provident Hospital were introduced after several years of experience with routine examinations of University students and hospital personnel. Beginning in 1934, the patients of the Prenatal Clinic of the Chicago Lying-In Hospital (one of the units of the University Clinics) were fluoroscoped routinely. This is a physiologically selected group but not one of patients in the strict sense of the word. The dangers of pregnancy and childbirth in the presence of active tuberculosis, however, made this appear a need of the first order.

The results have been highly gratifying and the disastrous results of the uncontrolled coexistence of both conditions have since been avoided—at least in those patients who came under care during the early stage of pregnancy—but even in others the worst has frequently been avoided by proper isolation of the baby and by therapy for the mother. In 1939 chest fluoroscopy of all clinic patients, regardless of the nature of their complaint, was begun in the clinic of the Provident Hospital. The results obtained in the first 25,000 Negroes so examined were that in 4 per cent of the total number, tuberculous involvement of the lung other than residuals of primary infections were found, and that 2.6 per cent had clinically important disease. The detailed findings in the various groups so far mentioned as well as the material contained in this paper were reported in a series of publications.

In October 1942 routine fluoroscopy was introduced in the outpatient department of the University Clinics. A fluoroscope was installed adjoining the clinical laboratory where, with few exceptions, the patients are sent for routine tests before reporting to the various clinics. The patients,

carrying blanks designed for the recording of fluoroscopic findings, are ushered into the fluoroscopy room by an attendant either before or after the laboratory tests have been completed.

The fluoroscopist records his findings by checking prepared items on this blank; he refrains from giving any information about the findings to the patient and reports to the clinician the impression gained from his observation but no definite diagnosis.

In all cases of suspicious or definite findings which seem to warrant examination by roentgenograms he suggests this to the clinician but does not order the films himself. Blanks with completely negative findings are returned to the patient to take to the clinic; all positive findings, be they ever so small and insignificant, are delivered there by an attendant. A stub with a short duplicate of the findings is retained for statistical purposes by the division of pulmonary diseases which conducts the fluoroscopic clinic and is responsible for its performance.

It takes approximately one hour's time before each clinic period, every morning and afternoon, to fluoroscope all patients on days with the average clinic attendance of slightly more than twenty patients.

It is one of the purposes of this paper to give an analysis of the results obtained in the first 15,000 patients examined in this group.

The total findings of reinfection type tuberculosis are practically the same in both racial groups but while among white patients clinically important disease was only half as frequent as the clinically unimportant, the reverse is true in Negroes. This lends further credence to the experience of recent years that the total number of involvement of the adult type is not different in the two population groups but

that the disease tends to take a less favorable course in the Negro.

The diagnostic differentiation into minimal, moderately advanced, and far advanced disease results in a great preponderance of minimal tuberculosis which exceeds in numbers the total of the two other classifications. The separately itemized figures which were obtained from the patients of the Chest Clinic show a shift toward the more advanced forms of tuberculosis as compared with the findings from the other clinics. They express the expected difference between the pulmonary status of the clientele of the lung specialist and of that of the general practitioner.

These findings represent a reversal of the distribution of tuberculosis in the average sanatorium population; there can be no doubt that this reversal in the distribution of the disease stages in sanatorium patients from that found in general practice signifies one of the major problems in the present-day fight against the disease. It demonstrates the vicious cycle resulting from the lack of hospital facilities which causes the patient with advanced disease to deprive the one with less advanced involvement of the possibility of institutional treatment, thus in turn causing him to progress into the far-advanced stage himself.

The findings analyzed according to the various special groups of clinics to which the patients were assigned by the admitting office are the same throughout. Since physical examination of the chest carried out in the specialized clinics differs widely in effort and quality, the identity of these figures is a comment on the value of physical examination as such. The figures for the Chest Clinic were itemized separately as not applying to those of general practice because of the preponderance of patients with suspected or prediagnosed tu-

berculosis who are referred for consultation.

We report the findings of nontuberculous, pulmonary, and extrapulmonary involvements which in number constitute by far the larger portion of the total of pathological and anomalous conditions which were observed. The occurrence of some incidental observations, the most important of which were thyroid enlargements and diaphragmatic involvement, was similar in the two racial groups except for foreign bodies which were much more numerous among Negroes. The almost identical frequency of pleuritic residuals can be interpreted as another hint that the tuberculous infection rate is the same in the white and Negro population.

Intrathoracic neoplasm was found in six-tenths of one per cent of all patients examined. The differentiation into various types of tumors classifies one-third of the total as metastatic lesions and more than one-fourth were subsequently diagnosed as primary bronchogenic carcinoma. There is a marked discrepancy in the figures obtained in white and Negro patients.

In part, this is explained again by the fact that the Chest Clinic in the University, to a large extent, functions as a consultation clinic where many patients come for confirmation of a previously established diagnosis or for therapy. In half of these tumor patients, however, this was not the case. They had been assigned to special clinics where physical examinations which might be expected to lead to a correct diagnosis are not carried out. The question of physical findings, however, seems altogether irrelevant since none whatsoever are elicited in the great majority of patients with tumors and never in those with really early involvements. The complaints which caused these patients to seek medi-

cal care in many cases were entirely unrelated to the pulmonary findings.

Involvements of the cardiovascular system make up the greater part of all observations. They were found in 14.4 per cent of all patients and were about equally divided into enlargements of the heart and of the aorta. The percentage was considerably higher among Negroes, which can be explained by the higher incidence of syphilis in that group.

The table on page 373 offers a summary of all findings. The total of 21.2 per cent of pathological or anomalous observations by a single short method of examination is impressive. The high incidence of nontuberculous disease such as malignant neoplasms and extrapulmonary, chiefly cardiovascular conditions, would highly justify a routine roentgen examination of the chest for all patients in any type of medical practice. In the University of Chicago Clinics such examinations now fulfill a general purpose although the program was begun as a case-finding survey for pulmonary tuberculosis. However, the diagnosis of tuberculosis in 4 per cent of all patients and in one and one-half per cent as a clinically important involvement is sufficiently significant to make the program a necessity.

It appears that much needs to be done to introduce this concept to the medical profession. Joslin² estimates that routine urinalysis uncovers the presence of diabetes in only four-tenths of one per cent of all patients examined. There seem to be no published opinions as to how many cases of blood dyscrasias are first recognized by routine blood counts but several experts whom we consulted estimated them as small fractions of one per cent of the total number of patients.

² E. P. Joslin, *The Treatment of Diabetes Mellitus*, Philadelphia, Lea & Febiger, 1940, p. 31.

COMPARATIVE INCIDENCE OF FINDINGS BY ROUTINE CHEST FLUOROSCOPY
(U. of C. Clinics and Provident Hospital Clinic)
RECAPITULATION

Findings	White 15,000 Cases		Negro 25,000 Cases	
	No.	Per cent	No.	Per cent
Tuberculosis	626	4.17	999	4.00
Cardio-vascular	2,166	14.44	5,223	20.88
Tumors	91	0.61	18	0.07
Other lung pathology	139	0.93	73	0.29
Pleural pathology	587	3.91	998	3.99
Anomalies	112	0.75	105	0.42
Mediastinal-diaphragmatic pathology	85	0.57	37	0.15
Skeletal pathology	149	1.00	99	0.40
Foreign bodies	6	0.04	70	0.28
Total findings	3,961	26.42	7,622	30.48
Less duplications	—774	—5.16	—1,331	—5.32
Net number of patients with findings	3,187	21.26	6,291	25.16

We submit that any physician or institution that did not require urinalysis and blood counts as routine tests would fall short of present-day requirements of good medical practice. The same applies for serological tests for all patients to rule out syphilis. The incidence of clinically important tuberculosis established by chest fluoroscopy in the expectant mothers of the Lying-In Hospital Clinic exceeds the findings of syphilis by routine Wassermann tests and thereby proved the search for pulmonary involvement as at least equally important in the control of other complicating diseases in pregnancy.

On the basis of the figures so far presented we could make the conservative estimate that during the first fifteen years of the existence of the University of Chicago Clinics—that is before the introduction of routine x-ray examinations of the chest—about 3,000 patients with clinically impor-

tant pulmonary tuberculosis were allowed to pass through the institution's outpatient department without that condition having been recognized. According to the available statistics³ approximately 45,000,000 adult persons seek medical care for one or more complaints every year in the United States. We feel certain that the quality of diagnostic procedures in our institution measures up to the average and that it is justified to apply our figures to the country's total number of clinic and office patients. The conclusion is that about 600,000 tuberculous individuals annually undergo a medical examination by which their disease is not recognized.

The question of the extent of the physician's diagnostic responsibility is diffi-

³ *The Cost of Medical Care; Report of the Committee on Medical Care, Chicago, University of Chicago Press, January 1933, Vol. 27, Chapter 3.*

cult to answer. In part at least it should be met by deciding whether or not all of a patient's ailments should be diagnosed or only those obviously related to the complaints which bring him under medical care. The former would render the doctor duty bound to find a patient's diabetes or hypertension or leukemia or tuberculosis even though he reports only because of an injured finger or a cinder in his eye.

We do not dare to suggest that this concept of medical practice should be accepted as a moral obligation by physicians, but we do feel that here is a problem in the practice of medicine which requires a solution.

After the great success which has been achieved with small size roentgenograms in mass examinations of the chest, the question why we use fluoroscopy in our case finding will be asked even more vigorously than has been the case on previous occasions. We do not wish to engage in detailed comments on the merits and demerits of the fluoroscopic method; they have been discussed in a previous publication.⁴

For noneducational institutions and wherever a shortage of medical personnel would make a fluoroscopic schedule too onerous, the small-size film should be the method of choice. Also in all group examinations where, for reasons of liability, a permanent record subject to re-examination at a later date is desirable.

For the purpose of quick results in a large general clinic, fluoroscopy makes it possible to acquaint the examining clinician in charge of the patient with the roentgen findings before he examines the patient; in fact, as experience has shown, before the results of other laboratory tests reach him. Neither speed nor the lessened expense, however, have been the chief rea-

son for our unwillingness to adopt a different method of examination. The main motive is of an academic nature.

In a teaching institution the training of medical students and young physicians has to be a primary consideration. Deeply convinced that the recognition and appraisal of intrathoracic disease should be as important an educational aim as other and better accepted medical skills, we feel that only experience in fluoroscopic diagnosis and the appreciation of its possibilities acquired in medical school will bring into the offices of future physicians the natural desire to discover chest disease and make a real contribution to case finding.

Our experience so far has justified this attitude. Medical students as well as members of the house staff crowd the fluoroscopic room to learn by observation and after an adequate training period most members of the house staff are anxious to participate as examiners. Even the lack of personnel during the war has caused little difficulty in filling the fluoroscopic schedule.

Unless still finer, speedier, and less expensive methods of roentgenography than those in use now are developed in the future, private physicians cannot be expected to burden themselves with the expense of special equipment and of personnel for its operation, but it can be assumed that the already widespread use in physicians' offices of the fluoroscope which extends to many extrathoracic diagnostic needs will increase rapidly. If public agencies continue to organize the universal search for chest disease in the general population, the fluoroscope in the doctor's office alone will enable him to make his individual contribution.

⁴ R. G. Bloch, Case-finding in tuberculosis, *Am. Rev. Tuberc.* 63:213, Feb. 1941.

7. Air-Borne Infection Can Be Reduced with These New Techniques, by *Edward Bigg, M.D., and Margaret Mellody**

ALTHOUGH it has long been thought that air transmission of disease occurs, it has not been until recently that bacteriological and clinical observations confirming this hypothesis have been presented. The spread of chicken pox and measles has been reported under conditions where direct and indirect contact have been excluded, and the spread of hemolytic streptococcal infections by the aerial route has been shown. The contamination of wounds by air-borne streptococci liberated from dressings and bed-clothing has been demonstrated by the recovery of large numbers of hemolytic streptococci from the air and dust of the ward.

The work of Wells¹, who developed the concept of droplet nuclei, has aided the understanding of the manner in which air-borne infection can occur. He has shown that small droplets expelled from the respiratory tract evaporate so rapidly that liberated bacteria float in the air for prolonged periods of time and ultimately settle in the dust of the room. Currents of air in the room can again set these organisms in motion as they cling to the dust particles.

Direct production of disease by the aerial route has been brought about experimentally. The exposure of animals to atmospheres containing a finely atomized mist of cultures of certain microorganisms has resulted in the development of disease. Among the pathogenic organisms so tested which have resulted in disease of the exposed animals have been paratyphoid or fowl cholera, pulmonary tuberculosis, pneumococcus pneumonia, and influenza.

The control of respiratory disease may be divided into four categories: first, the immunization of exposed individuals;

second, the prevention of dispersal of infected material into the air; third, isolation of infected patients; and lastly, the removal or killing of organisms in infected atmospheres.

Immunization as a means of controlling epidemics of respiratory disease has not as yet proved successful to a degree where its widespread use is indicated. Preliminary results in recently developed "cold" and "influenza" vaccines show promise, but no satisfactory preparations are as yet available. Variation in the strain of virus producing the infection is common, and the original strain must be identified before the proper vaccine may be administered.

It is possible to find several different virus strains as the causative agent in a relatively small group of individuals suffering from "common cold" or "influenza." The commonly used bacterial "cold vaccines" are entirely nonspecific and are made up of secondary invaders or those organisms which are usually found in the normal naso-pharyngeal flora. Several carefully controlled scientific studies cast grave doubt on their efficacy.

The importance of preventing the dispersal of infected material into the air is clearly recognized. It is impossible to eliminate expiration, coughing, and sneezing, and adequate masking of infected individuals as well as those coming in contact with them is desirable but often inconvenient. The usual operating-room mask does not efficiently screen out droplets. Canton flannel masks are highly effective

* Adapted from *Hospitals* 18:29-31, Aug. 1944.

¹ W. F. Wells, On air-borne infections; Droplets and droplet nuclei, *Am. J. Hyg.* 20:611-618, Nov. 1934.

for the purpose of controlling this secondary reservoir of potential infection but raise the problem of comfort.

Since it has been shown that dried organisms contained in dust may retain their viability for periods of as long as several weeks, dust control is of great importance. It is well known that the sweeping or dry-mopping of floors acts to scatter dust in the air, creating additional opportunity for the contraction of air-borne respiratory disease.

Wet-mopping does away with the immediate hazard, but its effect is not lasting enough to make it a satisfactory method; as soon as the floor is dry, dust in the air brought about by air currents from open windows and movements of occupants begins to settle and the cycle begins again. On wood floors a coating of a light paraffin oil has proved odorless and effective.² Prior to its use dust could be detected rising at each footstep taken, a condition which did not occur after its application. Wet-mopping with clear water and no soap is all that is required for cleaning such a floor. For highly polished floors or linoleum which becomes slippery when oil is applied, Robertson used a compound consisting of urea 5 per cent, ninol 3 per cent, and roccal 0.1 per cent. This mixture dries quickly, retaining enough moisture in the urea crystals and ninol to wet the dust and lint falling on its surface. The disadvantage of this compound is the necessity of frequent application.

Pathogenic organisms in great numbers may be recovered from the bed-clothing and blankets used by individuals harboring such bacteria, and their reintroduction into the air should be prevented as completely as possible. Robertson's work in this regard has been extensive and his results most encouraging. He has attempted

to treat these materials in such a manner as to eliminate lint and dust from being liberated into the atmosphere. It has previously been shown that if these fabrics were treated with oil they would retain the bacteria within themselves, and bedmaking and movements of sleeping individuals would not produce the expected rise in air bacterial counts.

Certain practical problems, however, arose in adopting this procedure. Robertson and his co-workers have developed a modification of an emulsion made by the Carbide and Carbon Chemicals Corporation. It contains Mineral oil (Fractol A) 88 gm., Oleic acid (purified) 8.9 gm., Triethanolamine 3.9 gm. and Lecithin 0.01 gm. Using this as a base for a water-oil emulsion in the final rinsing, bedding can be treated in the laundry process. The material so treated does not feel "greasy" or "oily." The percentage of oil content was determined and found to be well below that which constitutes a fire hazard. This procedure is effective in "trapping" bacteria in the meshes of the cloth and its use in large dormitories and contagious wards is suggested.

Isolation of the infected patient is a most important preventative measure, and, where this is feasible, should be carried out. Individual rooms offer greatest advantages, but isolation wards offer some measure of control. Unfortunately in the latter case, cross infections by other organisms frequently give rise to complications.

It is now well established that a reduction in the degree of exposure—that is, in the number of organisms presented to the individual—will cause a progressive dimi-

² O. H. Robertson, M. Hamburger, Jr., C. G. Loosli, T. T. Puck, H. M. Lemon, M. Wise, A study of the nature and control of air-borne infection in Army camps, *J.A.M.A.* 126:993-1000, Dec. 16, 1944.

nution in the possibility of developing disease. However, the prolonged exposure to even subinfective doses will result in the production of infection. With these observations in mind, the final consideration in the prevention of respiratory disease may be discussed: How may a reduction in the number of air-borne microorganisms in living quarters be brought about? This is of great significance, since in large living groups, both civilian and military, the factors outlined above cannot easily be controlled.

Any measure which will increase the number of air exchanges in a space will act to bring about a dilution of the atmosphere. This procedure, ventilation, is most commonly used, but its limitations are obvious.

Ultraviolet radiation has bactericidal activity. Certain objections to its universal application may be pointed out: (1) The expense of installation. (2) Dangers inherent in its use to the occupants exposed to irradiation. In order to protect the skin and eyes, it is necessary to shield the lights so that individuals are not exposed to the direct rays. For this reason complete irradiation of a living space cannot be attained and the actual area of sterilization is limited.

The air of a room may be irradiated near the ceiling where air currents will ultimately bring all organisms; bacterial counts of the atmosphere below this zone, however, show large numbers of organisms which may cause infection of individuals. (3) Ultraviolet has little effect on organisms in moist droplets.

The final means of control of air-borne infections to be considered is the sterilization of air by the use of germicidal vapors. As long ago as Lister's experiments with phenol sprays this method had been at-

tempted, but it has not been until recently that substances have been found which may be tolerated by human beings. The requirements for the application of any chemical used for this purpose are: (1) low cost, (2) availability, (3) high bactericidal activity in low concentrations, (4) absence of toxicity, local or systemic, (5) imperception by the individuals exposed.

The most promising of the materials tested have been the glycols. These compounds are characterized by being highly hygroscopic, freely miscible with water, slightly volatile, and exhibiting the chemical structures of alcohols due to their OH groups. It has been found that propylene glycol and triethylene glycol fulfill these requirements most closely. Since triethylene glycol is effective in much lower concentrations, it is, at present, the material of choice.

It is of interest to record briefly the description of laboratory procedures carried out to demonstrate the effectiveness of glycol vapors.⁸

Known quantities of bacterial suspension were sprayed into a rectangular glass walled chamber of 2 cubic feet capacity. The air was gently agitated by means of a slowly rotating fan. The number of viable bacteria recoverable from the chamber air was determined by withdrawing a measured volume of air at a constant rate through a glass funnel which was suspended directly above the surface of an agar plate within a sealed jar. Two identical chambers were used for each experiment, one for the test containing glycol vapors, and the other for control.

Various control experiments were un-

⁸ O. H. Robertson, E. Bigg, T. T. Puck, and B. F. Miller, The bactericidal action of propylene glycol vapor on micro-organisms suspended in air, *J. Exper. Med.* 75:593-610, June 1942.

dertaken which showed that lack of growth on the agar plate actually represented death of the bacteria in the glycol-treated air. The air was condensed on a chilled slide, allowed to dry, and stained. When examined it showed the presence of bacteria. The condensate, which on stained smear showed presence of bacteria, was inoculated into broth and no growth occurred, while condensate from the control chamber showed heavy growth. When air-condensate from the glycol-treated chamber was injected into mice, no untoward effect occurred, while air-condensate from the control chamber resulted in death of the animals so injected.

Concentrations of 0.1 mg. propylene glycol per liter of air or 0.005 mg. triethylene glycol per liter of air produced immediate death of organisms tested which included pneumococci, hemolytic streptococci, *E. coli*, nonhemolytic streptococci, *Streptococcus viridans*, *H. pertussis*, and staphylococci.

Studies on influenza virus showed that this group of organisms was just as susceptible to the action of glycol vapor as are pathogenic bacteria. Experiments were carried out in which young mice were exposed to a fine mist of mouse adapted influenza virus with and without glycol vapor in the test spaces.^{4,5} It was found that complete protection of mice exposed to atmosphere containing lethal quantities of the virus was constantly afforded by concentrations as low as those required for the organisms named above.

The application of these laboratory observations to the actual control of respiratory disease necessitated the development of a practical means of glycol introduction,⁶ methods for vapor distribution and control of concentration,⁷ studies of the behavior of vapors, and carefully con-

trolled tests on the efficiency of the vapors in reducing respiratory disease in large living groups.⁸

We have carried out such studies and have found that it is feasible to install glycol generating and distributing apparatus on a large scale. In combination with this installation, we have used the light paraffin oil floor dressing. Bacterial tests corroborate the small chamber experiments, and preliminary statistics on control of air-borne disease are encouraging.

Respiratory disease is responsible for more than one-third of the total number of man-days lost to American industry by disability, and represents an annual industrial waste equivalent to the output for a year of approximately 470,000 persons. During the last war 80 per cent of non-military deaths in the armed forces were the result of respiratory disease, and it is responsible for more than half the man-days lost in our present military forces. Thus its control offers a challenge to all those interested in the manifold aspects of this problem.

⁴ O. H. Robertson, C. G. Loosli, T. T. Puck, E. Bigg, and D. F. Miller, The protection of mice against infection with air-borne influenza virus by means of propylene glycol vapor, *Science* 94:612-613, Dec. 26, 1941.

⁵ O. H. Robertson, T. T. Puck, H. M. Lemon, and C. G. Loosli, The lethal effect of triethylene glycol vapor on air-borne bacteria and influenza virus, *Science* 97:142-144, Feb. 5, 1943.

⁶ E. Bigg, B. H. Jennings, The introduction of glycols for air sterilization by a new vaporization method, *J. Indust. Hyg. & Toxicol.* 26:307-312, Nov. 1944.

⁷ B. H. Jennings, E. Bigg, F. C. W. Olson, The use of glycol vapors for air-sterilization and the control of air-borne infection, *Heating, Piping, and Air Conditioning* 16:538-545, Sept. 1944; *Bull. Hyg.* 20:98, Feb. 1945 [abstract].

⁸ E. Bigg, F. C. W. Olson, B. H. Jennings, A practical application of triethylene glycol for air-sterilization in military barracks. In press.

8. Oxygen Therapy; The Administrator Considers Economy, by *Worth L. Howard**

ECONOMY in oxygen therapy requires the balancing of two broad considerations: first, the patient's requirements in terms of oxygen concentrations and methods of administration; second, the conservation of oxygen and equipment.

It is not the purpose of this article to discuss the medical indications of oxygen therapy or the methods of giving oxygen under varying clinical conditions. It looks at oxygen therapy through the eyes of the hospital administrator with two focal points in view: first, oxygen as a medicine and, second, oxygen therapy as an economic problem.

Oxygen therapy comes of age in each hospital the day that hospital recognizes the fact that oxygen is a medicine. Nearly every nurse who has handled an oxygen case will smile in recollection of an incident similar to the following: A patient is very ill, the worried physician straightens up with stethoscope still dangling from his ears and says to the room at large, "Let's give him oxygen." There ends the prescription.

We won't discuss the probable tardiness of the measure; the important fact is that there is no clear-cut prescription, probably no mention of the method of administration, much less an exact dosage in concentration or liter flow.

What would happen if this had been any other medication or form of therapy, for instance, the infusion of intravenous fluids? The nurse and hospital would expect a definite prescription as to the amount, method of administration, and type.

Oxygen can and should be prescribed exactly. The hospital that does not demand this of its staff physician is assuming an

unfair burden of responsibility which is loaded with impending difficulty.

If you put this article down and immediately write a memorandum to your staff to the effect that no more requests for oxygen therapy will be honored unless a clean-cut prescription is given to the attending nurse, it will be a right step forward. But, wait a minute! Don't put it on the bulletin board. You had better look to your end of the deal first.

Is your organization capable of carrying out this prescription properly? Do you have suitable equipment and do your nurses know how to go about reproducing the prescription? Will it be possible to give the 50 per cent, 70 per cent, or any other specific concentration of oxygen with any reasonable assurance? It is not a difficult job with present-day knowledge and equipment, but, unfortunately, the average hospital is not prepared to do it.

This article is not going to provide all details but it will give some good hints. The literature of some of the oxygen equipment firms will prove helpful, and there are a number of hospitals that have created oxygen therapy departments that will gladly share their experience.

You will want to confirm and elaborate on the following. Oxygen dosage, as is true with any other medicine, should be prescribed and maintained in accordance with the clinical condition of the patient. There are some unfortunate and widespread misunderstandings in the matter of oxygen dosage: for instance, that a 50 per cent concentration of oxygen is desirable in all cases. This is as faulty as a standard procedure of giving $\frac{1}{2}$ grain of mor-

* Adapted from *Mod. Hosp.* 64:90-94, Apr. 1945.

phine to all patients regardless of size, age, history, and clinical condition.

As an indication of the value of oxygen under proper prescription, its use with a coronary thrombosis patient will be interesting. If oxygen is given in high concentrations, 95 plus per cent, by a mask, pain relief is likely to be dramatic and as effective as any morphine therapy. However, if an attempt is made to gain the same effect by giving 40 or 50 per cent oxygen by tent or catheter the results will probably be disappointing.

Another of the great misconceptions in oxygen therapy concerns the amount of oxygen necessary to produce a given concentration. Hundreds of instances have been observed where nasal catheters have been operating at oxygen flows of $\frac{1}{2}$, 2, or 3 liters a minute. Such rates of flow are considered inadequate to produce really therapeutic dosage with adult patients. Face masks will be found operating at 1 or $1\frac{1}{2}$ liters a minute on adults and again the patient is probably receiving little oxygen therapy.

The greatest mistakes occur in the operation of oxygen tents. It is only the rare hospital that makes routine oxygen analyses of the tent atmospheres. The analyzer can be compared to the recording instruments on an x-ray machine. It provides the only means of determining performance of the equipment. The importance of routine analysis cannot be overstressed.

The average tent in this country is properly operated with an oxygen inflow of 6 liters a minute or less. If questioned, the physician would think that his patient was getting 50 per cent oxygen concentration; he is probably not getting 30 per cent and there is, of course, 21 per cent oxygen available in room air which means that the amount of therapy is negligible. To sat-

isfy yourself on this point obtain an oxygen analyzer and the next time a tent is operated in your hospital have a series of analyses made at frequent intervals. The results should be interesting.

But, you say, this is information that should be in the hands of the doctor. True, but it is more important that it be in the administrator's hands as oxygen therapy is a mechanical and nursing procedure from start to finish. The hospital administrator must first be aware of the conditions before a start can be made toward producing effective and economical oxygen therapy.

One vital reason for reviewing these facts is to eradicate from your mind the possibility of taking the apparently natural step toward economy in oxygen therapy, that is, the reduction of oxygen flows to the patient. On the contrary, the average hospital should increase the amount of oxygen delivered to every patient by at least 50 per cent in order to produce anything like desirable clinical results. If this seems contrary to your thinking in terms of economy, recall how much oxygen therapy has probably been given in your hospital that has been a total waste.

Thus, the first step to take in solidifying the oxygen therapy program, so that the memorandum which you have written can be safely posted on the staff bulletin board, is a basic knowledge of the mechanics of giving oxygen. Every existing procedure should be carefully analyzed in the light of accepted present-day information. It may be necessary to add somewhat to your equipment inventory, but probably not. The latest types of oxygen equipment, the new face masks and nasal catheter units are relatively inexpensive and a small expenditure at most will probably bring you well up to date.

Now you are prepared to handle the medical requirements of oxygen therapy, but what about the mechanical and economical phases?

The mechanical and economical failures of oxygen therapy revolve around a multitude of technical details: the return of residual oxygen in supposedly empty cylinders, poor storage facilities for cylinders and equipment, careless management of cylinder movements around the hospital, leaking regulators and fundamentally poor nursing procedure. To these can be added such items as careless systems of reporting charges and lack of any separate balance sheet on the cost and income of oxygen therapy.

As long as all of these factors are not consolidated and are at the mercy of practically every employee in the hospital, one can never hope to attain a fundamentally sound situation regarding the administration of inhalation therapy. Over a period of many years it has been conclusively learned that the whole complement of nurses and orderlies in any specific hospital can never be taught to handle properly all the details involved in giving oxygen to the patient. It is obvious, therefore, that the success of oxygen therapy depends on centralized control.

Most hospitals, regardless of size, could adopt the following basic plan. Appoint a member of the medical staff to have charge of inhalation therapy. Then, assign the job of doing the work to one department or individual. The anesthesia department is probably best fitted to assume this activity.

The ideal setup for the large hospital, where inhalation therapy is extensive, is to have a doctor supervise the entire activity, the anesthesia department to have responsibility for all practical phases and a spe-

cially assigned individual to do the work. (If your anesthesia department is headed by a physician it should not be necessary to appoint another doctor.) When this activity is not large enough to support such an organization, drop the technician and assign the technical work to one or two capable nurses or orderlies.

Under any conditions make a clear-cut assignment for the responsibility of oxygen therapy and perpetuate it in the event of personnel changes. This form of therapy is expanding rapidly and shortly will incorporate a sizable amount of work and considerable expense in every general hospital. The inhalation therapy activity can be made to be self-supporting.

The medical supervisor in the plan outlined should have the following responsibilities:

1. To examine every oxygen case regularly to check on techniques and procedures.

2. To set up suitable forms for recording clinical data and arrange to have this information properly entered by attending nurses or technicians.

3. To set up suitable forms for maintaining a continuous record of oxygen treatment to indicate the amount and cost of materials used.

4. To provide adequate training for those who will handle the actual administration of the therapy.

5. To arrange for teaching inhalation therapy to the entire complement of nurses and orderlies as well as interns.

6. To keep abreast of advances in the therapy from the clinical and technical points of view. This will include being familiar with all equipment developments and techniques.

The following duties should be assigned

to the department or person handling the practical phases of oxygen administration:

1. To set up and operate suitable systems for ordering, storing, and dispensing all supplies and equipment.

2. To set up and operate all types of inhalation apparatus. This will necessitate routine visits to every oxygen patient every day, at which time a thorough checkup should be made. If tents are used, analyses of the tent atmosphere should be made and the results recorded on the patient's chart.

3. To arrange for the cleaning, sterilizing, and repair of all equipment.

4. To set up and maintain a system for making charges.

5. To maintain records to show all data pertaining to the cost and income of oxygen therapy.

There are many individual points of procedure that can be adopted in the interest of economy and efficiency. However, the act of assigning responsibility for inhalation therapy will prove the greatest single thing that can be done to effect a sound economical handling of this therapy. Furthermore, with the inauguration of a well-organized department you and your medical staff will be pleasantly surprised with the often dramatic results obtained with a treatment which has frequently seemed of questionable value.

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CHAPTER XV. MEDICAL SOCIAL SERVICE

I. Medical Social Service, by *Leonora B. Rubinow**

A HOSPITAL is probably as complex and intricate a piece of social machinery as has been devised, and hospital administrators are faced with a stupendous task in trying to keep this machinery well oiled and running. But the goal of hospital administration, I take it, is not the maintenance of a smooth, efficient, and economical piece of machinery as an end in itself. Rather, it aims to provide the structural framework, the conditions and facilities that best enable medical practitioners to apply, develop, and enrich both the art and the science of medicine in an institutional setting. In other words, it aims to provide necessary and appropriate care for the sick.

There are a variety of ways of helping the sick. Medicine is one way; medical social work is another. The help a sick person requires depends on a number of things—the nature of the illness itself, the kind of person who is ill, the social setting of which he is a part, and the resources that are available to him. The needs of the sick are rarely simple; more often they are complex and require several kinds of help at the same time.

Traditionally, the physician has always had an interest in the social factors of the patient's illness, but his primary professional concern is the patient as a physical organism. In her approach to the patient, the medical social worker always starts with some understanding of the underlying medical problem, but her primary professional concern is the personal and social factors in the patient's situation, particularly those factors that have some bearing

on the illness. The implications are that there is something within the patient himself or within his environment that is contributory to his illness or that prevents him from traveling a smooth course from illness to physical recovery and from physical recovery to restoration to social functioning. Or there might be something in the nature of the illness itself that threatens serious and destructive consequences to the patient or to the pattern of living he has established for himself. Thus we see that if treatment of a medical problem is to be successful, in terms of the life-career of the patient, it must frequently include consideration and treatment of the social factors interwoven with it.

We might say, then, if we were asked to define what we mean by medical social work, that it is part of the individualized service which the physician gives his patient; that it attempts to understand the needs of and the circumstances surrounding the individual patient and the bearing these factors have on his illness. Through this understanding and through the application of social case work principles and techniques, it aims to help the patient utilize, to the fullest capacity, the medical care available to him, and work out a pattern of life that is at the same time consistent with his physical limitations and satisfying to himself.

I think hospital administrators know that it was not a matter of chance or accident that social service was first introduced into hospitals. It came in response to

*Adapted from *Hospitals* 17:95-100, Mar. 1943.

a need, a need that was felt by thoughtful physicians who were disturbed by the kind of medicine they were practicing in institutions. They recognized two standards of medical practice, the kind they practiced privately and the kind they practiced in institutions. The one was intensely personal, the other highly impersonal. They recognized gaps in their knowledge of clinic and hospital patients, gaps that baffled them in making a diagnosis and handicapped them in directing treatment. To bridge these gaps, these physicians proposed the introduction of social workers into the hospital for the contribution they could make to the understanding and care of the "whole" patient.

While there is definite evidence that at the turn of the century this general approach to the patient was developing simultaneously here and in England, it was not until 1905 that it was crystallized into an organized hospital service. Since that time, the knowledge, skills and areas of helpfulness of medical social work have deepened and expanded way beyond its modest beginnings, but the original premise still remains—the need to consider the "whole" patient.

In 1927, the eminent Dr. Francis Peabody, Professor of Medicine of the Harvard Medical School, lectured to his medical students as follows:¹

Now the essence of the practice of medicine is that it is an intensely personal matter, and one of the chief differences between private practice and hospital practice is that the latter always tends to become impersonal. . . . When the general practitioner goes into the home of the patient, he may know the whole background of the family life from past experience; but even when he comes as a stranger he has every opportunity to find out what manner of man his patient is and what kind of circumstances make his life. . . . What is spoken of as a "clinical picture"

is not just a photograph of a man sick in bed; it is an impressionistic painting of the patient surrounded by his home, his work, his relations, friends, his joys, sorrows, hopes and fears. Now, all of this background of sickness which bears so strongly on the symptomatology is liable to be lost sight of in the hospital. . . . When a patient enters a hospital, the first thing that commonly happens is that he loses his personal identity. . . . The trouble is that it leads, more or less directly, to the patient being treated as a case of mitralstenosis and not as a sick man.

In this lecture Doctor Peabody is presenting what he calls the "larger view" of the medical profession.

Today we find a rebirth of this emphasis on the need to see the "whole" patient in the newer concept, still more popular in medical discussions than in medical practice, of the psychosomatic approach to medicine. Conditions existing in modern hospitals of today, particularly in the large urban ones, do not make it easy for the physician to see the "whole" patient, even when he accepts the validity of this concept. Sharing this responsibility with the medical social worker brings it closer to realization.

Out of all this, the facts important to our present discussion are that medical social service is still a relatively young service in the hospital field, that it was conceived by physicians for the express purpose of rendering their institutional practice more effective, that it originated and grew up within the folds of clinical medicine, and that it is a dynamic force continuously moving ahead in keeping with developments in medicine itself.

As already implied, the central or major function of medical social service is social case work on behalf of the individual patient. In this capacity the medical

¹ Francis Peabody, *The Care of the Patient*, Cambridge, Harvard University Press, 1928, p. 12.

social worker acts as part of the medical team, cooperating with the doctor who is the leader of the team. Always in a medical social situation there are at least three elements, a doctor, a patient, and a social worker. There may be more but there are never less than three.

The social worker sees the patient² not as a disease process but as a person who is ill and who reacts to illness in much the same way as he reacts to other difficulties in his life. She sees him in a specific episode of illness. She is not concerned with the name of the disease but rather with what it does to the patient, how he feels about it and what his capacity may be for adjustment to it. She sees each patient as a unique entity presenting a unique situation. She recognizes the importance of having the patient participate in plans for his care and helps him accept responsibility for making important decisions in relation to it, for taking a difficult step, or for making a choice between one possibility and another. In other words, she helps him see his situation realistically and do something about it in so far as he is able.

More consciously than other hospital personnel, the medical social worker refrains from passing judgment on the patient's behavior, knowing that illness with all its problems, real and fancied, creates conflicts within the person or intensifies already existing ones and causes him to act on the basis of motives that he himself does not understand. She sees his behavior as a symptom of underlying trouble, and she looks beneath the surface for its true meaning. Through this kind of acceptance and understanding, the so-called "difficult patient" ceases to be "difficult" and begins to cooperate with the doctor and the nurse in the medical care program.

The physician sees the patient isolated

from his usual setting. The medical social worker sees the patient as an inseparable part of his surroundings, as a member of a family unit and of a wider community group. While her focus is on the patient, she must often extend her activity to include the family and others with whom he is associated. If the family does not understand the needs of the patient, it can ruin all that has been achieved for him within the hospital. It often becomes necessary for the social worker to draw the family into participation in the decisions to be made and the plans to be worked out.

Thus we see that the medical social worker is an important factor in assuring individualized consideration of the patient on the basis of his particular needs, in a setting which is highly impersonal, in which, for administrative purposes, the emphasis is on groups rather than on individuals, and where, in the rush of things, it is easy to lose sight of the individual.

Two examples illustrate what this process of individualization means in the treatment of the patient. They involve two house patients who presented similar situations to the doctor in that they both made good recoveries following surgery except for their inability to get out of bed and walk and their resistance to leaving the hospital.

One was a young woman who had entered the hospital for gynecological surgery. During the operation it was found necessary to do a hysterectomy. The social worker learned that the patient and her husband had been professional dancers, traveling from city to city as members of a dance troupe. After several years of mar-

² For full discussion of this, see Harriett M. Bartlett, *Some Aspects of Social Case Work in a Medical Setting; A Study in the Field of Medical Social Work*, American Association of Medical Social Workers, 1940, Chapter 1.

ried life, they left the stage in order to settle down, establish a permanent home, and raise a family. When the patient realized that she could not have children she considered herself a total failure and disappointment to her husband, and brooded with a deep sense of personal guilt. She could not face him with this information and could not bear the thought of going home. When the social worker realized the basis of her difficulty, she suggested that the physician might discuss the situation with the husband, presenting it as a matter of medical reality rather than as a reflection of personal inadequacy. The patient grasped at this suggestion, a conference was held with the physician, the husband accepted the interpretation, the patient responded to this turn of events, was able to get up and walk, and left the hospital in a more cheerful frame of mind.

The other case was that of a middle-aged man who had an ulcerative colitis. An ileostomy was performed. In spite of good postoperative results this patient protested his inability to walk and found one reason after another for not feeling well enough to leave the hospital. The social worker learned that this patient had been "ailing" for many years and that he had long since relinquished to his wife the job of supporting the family while he puttered around the house. Illness had frightened him further. As a fundamentally dependent person he clung to the security of the hospital bed. In this instance, treatment consisted of removing the patient to a small nursing home for a specified period of time, the expense to be shared by the family and social service. In this semiprofessional setting the patient received the security he needed as there was a nurse in attendance, while at the same time he was provided with a more normal, homelike atmosphere than the hospital could offer.

By the time the designated period was up, the patient had regained confidence, was walking about freely, and returned home cheerfully. Though not an economic asset to his family or community, he was prevented from becoming more invalided than he had been at the point of hospitalization.

In some instances the medical social worker must deal with the total situation of the patient while in other instances her concern may be limited to a narrowly circumscribed area of it. For example, in planning adequate care for a child with a tuberculous hip, the social worker had to consider not only the various needs of the patient herself, but also a childlike, overburdened mother with a pulmonary lesion, who could not adequately care for the child and yet would not release her to more competent hands and who would not accept medical care for herself; an irresponsible, shiftless father who occasionally deserted, never made an effort to support his family, and yet wanted to be respected as head of the household; two baby sisters who were being exposed to infection without any protection; a community that did not provide adequate sanatorium facilities and harbored a political situation that would do nothing about it; and a local ordinance providing for the isolation of tuberculous patients, with no teeth to enforce it. In this instance, the patient could not be treated apart from the total situation.

In the case of a woman with rheumatoid arthritis who felt she could not carry out the doctor's instructions for home physiotherapy because she lived in a rooming house, the social worker's only concern was with those aspects of her situation, real and subjective, which had to do with this specific problem. The patient felt she could not construct the necessary appara-

tus; she did not know where she would keep it if she had it; she was sure the people in whose home she lived would not permit it; she was afraid the electricity costs would be too high; she did not have a convenient outlet for the electric connection, etc. There were many unfavorable factors in this patient's total life situation, but they had no direct bearing on the immediate problem and hence were not brought into consideration. It is the social worker's function to determine how much of the patient's total situation is pertinent to the problem at hand and accessible to treatment in much the same way as the physician must determine the direction and extent of medical treatment.

In addition to this primary function of casework, there are other activities in the hospital which a medical social worker is peculiarly well equipped to handle. These activities, while appropriate to medical social work, should not be confused with or substituted for its central function. They are largely administrative in nature in that they involve the management of groups of patients, but they are wisely administered when they give consideration to individual differences within the group. Among such activities are admission of patients to clinic and hospital, setting of rates for medical care and appliances, follow-up of clinic patients and discharged hospital patients, etc. The social worker's knowledge of human behavior, her skill in interviewing, her ability to sift material, integrate various factors, and arrive at a fair and equitable decision make her particularly well suited to this kind of administrative activity.

When social workers engage in these administrative activities, it is desirable that there be a separate staff for this purpose. Such staff may be placed within the department of social service or may be part of administration. In large hospitals, it is

not difficult to plan separate staffs. In small institutions, it may be necessary to combine these functions in one staff. Whenever this is done, however, the differentiation in function should be clearly understood by everyone concerned as there is always the danger that hospital pressures will eventually push aside the primary function of casework before anyone becomes aware of what is happening.

There is still another group of functions with broader community implications. In the matter of communicable disease, the medical social worker may assume a public health function, as for example, helping to keep the patient under treatment, planning with him for the examination of contacts, the source of infection, etc. She may participate in community planning for health and welfare; may teach social aspects of illness in allied fields, such as medicine, nursing, and dietetics; may supervise field work training for students in medical social work; and may engage in medical social service study and research. These are legitimate functions of all medical social service departments.

The social service department should follow the same general pattern of organization as that used for other departments of the hospital.³ It should be an integral part of the institution. In some instances, social service has been established as a project of an outside organization. This is an undesirable practice as it does not permit the establishment of sound interrelationships among the various hospital services, which is basic to effective care of the patient. There should be a professionally qualified director in charge of the department with direct lines of responsibility to

³ For standards of organization, see *A Statement of Standards to Be Met by Medical Social Service Departments in Hospitals and Clinics*, American Association of Medical Social Workers, 1936.

the executive officer of the institution and through him to the governing board. The head of the department should have ready access to and frequent conferences with the executive officer for whatever consultation, guidance, exchange of information and joint planning may be necessary. When a subexecutive acts as intermediary between the department head and the executive officer, the vitality of this relationship is lost and its effectiveness destroyed.

The director of the department should be expected to give leadership to the department through responsibility for program building and policy making, through the establishment and maintenance of standards of service and of personnel, by developing good interrelationships, and by setting the professional tone of the department. In the matter of personnel, she should assume responsibility for writing job specifications and personnel qualifications, for recommending salary ranges and personnel practices, for recruiting staff, and for appointing and releasing staff members in keeping with the personnel policies of the institution. Likewise, the director should be expected to give leadership in relation to the professional growth of her staff, to provide adequate supervision as a means of sharpening the skills of the worker as well as a protection to the service, to enable staff participation in department policies and program and to offer opportunity for job promotion in accordance with individual capacities. In a small hospital, direct supervision of staff will be given by the director. In a large institution, special supervisory personnel will be necessary.

The social service department should be financed through the hospital budget as are all other departments, regardless of the sources of funds. After the budget is allocated it should be controlled and adminis-

tered by the director so that she may use it flexibly in meeting shifts in staff and other unexpected needs as they may arise.

The location of the department and the amount of floor space allotted to it are important considerations. In general, it may be said that the basement is not a desirable location, though failure to include social service in building plans has frequently made it a necessary one. Good standards require that the patient be afforded the same protection of privacy in his social interviews as he has in his physical examination. A comfortable, relaxed atmosphere, free from the irritation of interruption will enable the patient to make the greatest possible use of the interview. Preferably, there should be a central office or reception room with individual offices that are accessible to both doctor and patient. In lieu of individual offices, scattered interviewing rooms will be found helpful. It is also desirable that the department have a conference room that may be used for staff meetings, for conferences with other social agencies, and for study committees of the staff.

Every social service department will find it helpful to have an advisory committee comprising members of the medical and nursing staffs, the administration, the governing board, and other lay groups associated with the hospital. Such a committee can give the department a great deal of support within the institution and in the larger community by helping to maintain standards, to interpret functions, to bring about better understanding, and to further integration with other hospital services and other community agencies, thereby increasing the department's opportunities for helpful service. Preferably, such committee should be appointed by, responsible to, and represented on the governing board.

What do we mean by education for medical social work and why is it neces-

sary? All professions started their earliest training programs with the apprenticeship method. The embryo physician had his first lessons in medical diagnosis as he carried the bags of his mentor. The youthful aspirant to legal fame started out by reading law books in the office of an established barrister. History records the magnificent achievements of individual doctors and lawyers who developed their skills under these crude methods. However, history has neglected to record the damage and destruction wrought by others who failed to learn in this manner.

In social work today, there are a body of knowledge, basic concepts, principles, and techniques that are known and can be transmitted by those who know them to those who want to learn them. Wanting to help is not enough and does not guarantee knowing how.⁴ When a friend asks us for help or advice, we may give it either because we feel the friend needs it or we cannot bear to refuse it. In either case, our "giving" is a personal reaction. The professional social worker does not help or advise on the basis of a personal reaction but only in relation to the function of her agency. She is aware of herself as a representative of an organization with a specific function to fulfill. While she is alert to the patient's reactions in a "helping situation," she is also aware of herself. "Psychology even more than charity should begin at home."⁵ The worker is careful not to inject her own biases into the situation. She does not consider whether the patient is the kind of person she likes or of whom she approves. Her only concern is the patient's needs in relation to the ability of the organization to meet them.

Through professional education, the worker develops a "professional self" which makes it possible for her to function constructively in a "helping situation." A

person who is terrorized at the thought of surgery cannot help the patient emerge from his panic and confusion and arrive at a decision to go ahead with the operation. A person who flinches at the mention of cancer cannot help the patient face months of torture ahead with calm and courage. A person who thinks of syphilis as an evidence of cardinal sin cannot be helpful to the patient who feels he has brought shame and disgrace to his family that he can never live down. Education for medical social work is a requisite for "helping" in situations of this kind.

Adequate preparation for medical social work includes graduation from a recognized university and the completion of a curriculum in medical social work approved by the American Association of Medical Social Work. This involves two years of graduate study in an accredited (by the American Association of Schools of Social Work) school of social service. The first year of this graduate study is spent in basic preparation for generic social work, including historical background, methods, techniques, philosophical concepts, and basic information. The second year is given over to the specialized field of medical social work and includes both classroom instruction and supervised field work in a medical setting. At the present time, there are fourteen schools of social service scattered across the country, offering a curriculum in medical social service that meets the established standards.

The hospital administrator is a very important factor in the establishment of effec-

⁴ For fuller discussion, see Dorothy B. Daly, *Case Work Practice in Public Assistance Administration*, Chicago, American Public Welfare Association, 1942.

⁵ Lawrence Lunt, Human nature and its reaction to suffering, in *Physician and Patient*, edited by L. Eugene Emerson, Cambridge, Harvard University Press, 1929.

tive social services within the institution. It is a matter of common observation that institutional personnel pattern themselves after the attitudes they see at "the top." Acceptance at "the top" is requisite to acceptance all the way down the line. This is particularly important in relation to members of the house staff, almost all of whom come out of medical schools with little awareness of the patient as a social being. In their zealotry to apply what they have learned, they not infrequently seem to become more interested in emptying a hospital bed than in what happens to the patient. The administrator can be helpful in presenting social service to them as having a rightful place in the hospital scheme and in giving them some knowledge of how to use it in the interests of their patients.

Administrators who appreciate the need for flexibility in the individualized care of the patient will not insist upon a routine, ritualistic carrying out of hospital rules and procedures. They will make it possible

for the social worker to have considerable freedom in relation to the hospital structure. In this way they can be assured that the hospital's regulations are made to serve the interests of the patient and not to perpetuate rules for any virtue they may have in themselves.

Finally, hospital administrators would do well to draw social service into policy making and program building as they relate to the patient group. Social service brings a new point of view—a different approach to administrative problems. By virtue of this difference it has a contribution to make. This should not mean a clash of opposing points of view but rather the injection of a healthy and enriching note into the whole fabric. The administrator plans for the management of a group of patients. Social service sees what happens at the patient level. In the final analysis, the acid test of a hospital policy is how it affects the individual patient. Social service, wisely used, can provide the testing ground for sound administration.

2. The Sphere of the Social Worker, by F. Stanley Howe*

A MEDICAL social worker may be regarded as a specialist who explores the personality and environment of the patient for facts and clues which, when pooled with the findings of other specialists in their respective fields, contribute to the enlightened and successful treatment of the whole patient.

The busy doctor, occupied with the varied troubles and problems of many patients, lacks the time to elicit from a given individual whom he may see in his wards some of the concealed, but nevertheless serious, conflicts or problems that may have an important influence on his physical condition. The wise doctor, baffled in his search to find the solution of a case in

purely physical symptoms, turns to the case worker who has the time and the training and whose business it is to obtain the missing information.

Only the person who has suffered from a combination of physical disease and psychic reactions can realize that the latter may often be the more serious, and failure to deal with them can thwart the best efforts of doctors and nurses.

The relationship between social worker and doctor must be reciprocal if it is to be fully effective. The physician, recognizing his own limitations, can assure a welcome for the case worker by explaining to the pa-

* Adapted from *Mod. Hosp.* 59:67-68, Dec. 1942.

tient why she is being called in and how fully she is trained to deal with her part of the case. The social worker, in turn, can develop in the patient a thorough desire to cooperate by carrying out the instructions of the physician, both while on the wards and upon discharge.

Inspired by the example of the early successful pioneers in the art, standards have generally been developed for the qualifications that are desirable in the individual worker; in the organization of social service departments in hospitals of varying size and character; in the facilities required to permit adequate work; and for the extension of functions beyond the fundamental one of strict medical case work. Whatever else a medical social worker may attempt to do, however, nothing transcends in importance, or should be allowed to interfere with, the highest type of case work, meaning the thorough study and recording of each individual case and the full coordination with other departments or organizations interested in its treatment and follow-up care.

Hospitals are coming now to include under the general scope of social work such other activities as the admission of patients and the development of programs for teaching and social research. All of these activities are vain in any institution unless its case work is being properly covered.

Tradition dies hard in the hospital field, and I dare say that many institutions are still suffering from the illusion that a social worker is a sort of "good fairy" who will bankrupt the hospital in her desire to render free service to many who are not entitled to it. Dr. Haven Emerson found two such hospitals in New York City. In one case it was feared that a social worker would get too much free care for persons in whom she was interested, whereas the

other hospital feared that a worker would so restrict the amount of medical charity as to hamper the work of the institution!

There is no ground for either fear in any hospital that possesses a proper conception of its community function and employs social workers who are well trained in their profession. Each patient presents a separate problem that must be solved by those who are trained to evaluate the facts in each instance. Only by this means can a consistent policy be developed and maintained.

Many hospitals may hesitate because of the cost. Qualified case workers have spent six years in college and postgraduate work and are entitled to a compensation commensurate with the investment in their education and training. A small hospital is just as sensitive to the reactions of its community as is a large one, and few are so small that they could not afford a competent worker, particularly when they can utilize part of her time and talents in other than strictly medical case work.

Admitting is becoming recognized as a social procedure, and in small institutions in which numerous duties are performed by one individual, the cost of a competent case worker could be easily absorbed and her activities would be beneficial in many ways. Speaking for a hospital which, since 1931, has used the help of the medical social service department in trying to do a good job in the admitting departments for both inpatients and outpatients, I can say that we no longer know any other way to do it. The fact that the admitting officer's contacts with the patient are short, with no time for conference and review, makes them important and critical. Only the skilled admitting officer can do her full part in the few minutes she has to start the patient on his way to what may be the most trying experience of his life.

While we cannot prove its value in dollars and cents, we believe that using the services of the social service worker in the admitting office pays. With more than 7,000 ward and private admissions in a year, I cannot recall a complaint about the methods or attitudes of our admitting officers in the last ten years.

Clinic admitting seems to be more difficult. Efforts to weed out persons considered ineligible for reasons of income or residence cause some friction, possibly because more of these patients present themselves instead of being referred by physicians who are familiar with the clinic regulations and who know the patients personally.

Perhaps some of the criticism of such departments has been caused by attempts on the part of social workers to spread themselves too thin. In an effort to be accommodating to the medical staff and to other departments, they have, perhaps, undertaken duties that are not related to medical case work. It is perfectly natural that any department in its initial stages should desire to make itself of genuine service but, in the long run, sticking to its job until that is done well is the most successful policy.

In other instances, dissatisfaction may arise from an inadequate and overloaded staff that is unable to bring its cases to completion. I have seen instances of this sort when a worker seemed to be carrying an unbelievable case load, but on examination it was found that little work of any value was being accomplished.

In general, I think it is fair to say that given enough of the right kind of service, the verdict will be "more of the same kind, please."

It usually devolves upon the hospital administrator to provide proper working conditions and to prevent workers from

wasting their efforts in activities that are unrelated to their essential functions. It should be his duty to see that adequate facilities are provided so that not only the chief social worker but each of her assistants can carry on confidential contacts with patients and relatives in suitable privacy, and to supply them with sufficient clerical assistance so that their records and reports can be promptly prepared.

The necessity of making duplicate copies of such reports indicates that they should be typewritten; much needless effort will be spared if this is done. The worker who in earlier days carried things in her head or wrote them out in longhand when she found time no longer meets today's pressing need. Good authorities consider that one full-time clerical assistant for each three workers is not excessive, and our own experience bears this out.

The medical social service department should be located as conveniently as possible to the points of entry of patients and visitors and at a point at which it will be accessible to the medical staff, although perhaps the best point of contact between doctor and worker is on the wards and at the bedside, whenever this is practical.

As a relatively new function and one which through its outside contacts comes more naturally within the purview of the lay person, it is not uncommon to find hospitals in which social service departments have been started by the action of a special committee and are financed by it. Much good can result from the interest of a properly constituted committee in the work of this department, but only if there is no question whatsoever of the control and direction, both of policy and finance, being vested in the hospital board and administrative staff.

Workers in this department should consider themselves as employees of the hos-

pital and the same standards of pay and privileges ought to prevail. Cases are on record in which gross inequalities have resulted from the special solicitude of a committee in the work of such a department. Far-sighted persons should see that only harm comes from this form of favoritism.

The success of social service in any hospital, whether small or large, will depend in a major degree on the personalities of those who represent it. Modern training is, I believe, developing in its students an increasing degree of sympathy and understanding, along with modern knowledge of medical and economic problems.

There is no inconsistency between the highest form of human service and a presentation of its case in dramatic form as a means of obtaining increasing support. Our own recent experience in Orange, N.J., might be of value to other administrators and to social workers. In May 1939 we had prepared what we thought was a convincing appeal for adding a third medical case worker to the staff of our social service department. These arguments, however, did not convince the committee to which they were presented, and I went home late in the evening quite discouraged.

By accident I picked up the May 20 issue of the *Saturday Evening Post* and opened to an article by Hannah Lees entitled, "The Emotional Angle." Miss Lees, who has written many excellent stories with hospital background, "had something there" that fitted our situation exactly. I immediately obtained copies of this article and sent them to the officers of our board

and the members of our social service committee, with a letter stating that this story was no exaggeration.

Lay persons responsible for the balancing of our budgets are entitled to as much evidence as we can provide showing that good social work pays dividends both in dollars and in human values.

Shortly thereafter an article entitled "Anxiety and Illness," by George W. Gray, appeared in the June number of the *Reader's Digest*, which also was distributed among the same members of our board. Thanks to this evidence, the board came to the conclusion that our request was justified and appropriate favorable action ensued.

Another problem confronting the social service department of Orange Memorial Hospital was to convince our staff physicians that referrals by them were the most satisfactory. Some of our doctors were inclined to feel that we were looking to them for more than should be expected of a busy member of the staff. Reprints of an article by Harriett M. Bartlett, which dealt clearly and convincingly with the subject of referral of cases by physicians, were distributed among the senior members of our staff and to some of our nurse supervisors and others in the hospital. Since that time our proportion of referrals has been most satisfactory.

No hospital today should consider itself complete, or even modern, if its organization does not include one or more individuals trained to approach the personal problems of patients in accordance with the highest ideals of medical case work.

3. Responsibility of the Clinic in National Health, from the Viewpoint of the Medical Social Worker, by Eleanor Hall*

OUR interest in national health has been intensified in the last year by the large proportion of young men rejected from

army service because of disease or physical defect. These boys who have been called in

* Adapted from *Hospitals* 16:22-24, June 1942.

the draft are random samples from our population. Their physical examinations tell us that nearly half of the population suffer from some degree of physical defect. There is a greater awareness that the strength of the nation tomorrow will depend on what is done to assure the health of the civil population today.

This is a challenge to the clinic not only as a wartime necessity, but as a peacetime aspiration. The clinic can serve as a social force in the community because its central focus is social (service to humanity).

What then is the responsibility of the social worker in meeting the challenge of national health?

We see the social worker in the clinic as part of the medical team working in close association with the physician, the nutritionist, the nurse, and other specialists in the best interests of the patient. Sometimes when there is much specialization, there is a tendency toward an artificial "splitting up" of the patient, and of thinking of him only as a physical organism. The social worker in the clinic finds it important to keep in view "the whole person" and to think of him as a social being and an individual. It is the responsibility of the social worker to equip herself with knowledge and skills which will permit her to understand the individual and his social situation as it relates to his physical condition. It is important for her to know what a certain illness means to a certain individual and what social factors may stand in the way of his recovery, and to interpret this to others on the medical team.

The social worker in the clinic is also a representative of the community. She represents the community point-of-view to the hospital personnel and interprets the hospital and the patient to the community. The medical social worker thus comes to

the patient as a representative of the medical team, the hospital administration, and the community, and is in turn his representative to them.

In thinking of the social worker's part in a program of prevention in the clinic, I would like to think of prevention in its broadest sense. It would include not only the discovery and correction of defects and early diagnosis, but also the program of control of disease as long as a specific medical plan is followed by the patient, and a somewhat different type of prevention which does not concern the disease itself but the patient's response to it. This type of treatment aims to prevent that breakdown of morale which increases disability in cases of chronic disease and physical handicap.

Individuals give many reasons for failure to obtain medical care, sometimes ignorance, prejudice, fears of various kinds, inability to pay. In many cases, delay in diagnosis means progress of the disease to the point where recovery cannot be assured.

Where the individual has not yet come to the clinic but is in need of medical care, the responsibility falls on the outside agency for interpretation of need for medical care. But there are many instances where an individual refuses further clinic care and where the social worker can be of assistance in talking with him about his reasons for this. Discussion of fears, further interpretation of medical condition, or possibly assistance in reducing fees may help the individual to continue his plan of medical care.

Occasionally in working with a member of a family group, the social worker learns of defects in other members of the family. A mother spoke of her worry about her young daughter Jean who was doing poorly in school. Mrs. F was told

by the child's teacher that her daughter did not give proper attention in school and was failing. The mother wondered whether there might be some physical basis, as Jean did seem to be somewhat hard of hearing at times. Mrs. F brought Jean to the clinic where she was found to have an impairment in hearing, which was thought to be caused by infected tonsils. The doctors advised removal of the tonsils, believing that the hearing would be improved. When the tonsils were removed, Jean's hearing improved, and in turn she became a much better adjusted child in school.

The social worker often finds herself met with the problem of discovered defects which cannot be given care in the clinic set-up. The problem of dental defects, for instance, often arises and although the resources in the community are limited, the social worker can make her knowledge regarding these resources available to the patient.

The nutritionist may find that although a patient has been carefully instructed in dietary procedure, he may not be able to follow his diet or may not want to follow it for various reasons. Lack of finances quite often stands in the way of adherence to a diet. A patient's income may be not only inadequate to meet the special diet but insufficient to meet the necessities of life. Helping this patient to obtain assistance through a social agency which will be able to meet his problem is a responsibility of the social worker. Then there are those with inadequate incomes who will not accept help. I am thinking of a family of eight who came to my attention because there were three malnourished children in this family group. The father was struggling along on an income much too small for his family's needs but would not accept help from a public relief agency

because he felt there was stigma attached to it. Trying to understand how this father and mother felt and yet helping them to see the value of supplementary help was worth while if measured in the health of those three children.

Diets and food have different meaning for different individuals. The social worker quite often finds that there are emotional reasons for a patient's failure to follow the nutritionist's instruction. Such a case was that of a malnourished widowed woman of thirty who was found to have had an extremely defective diet over many years. Placing her on an adequate, well-balanced diet had no effect until we were able to determine why she had such a poor diet. A study of this situation revealed that she had lost interest in food because she had lost interest in life. She expressed unhappiness over the sudden death of her husband. She was resentful because she was left to support her children and yet was unable to find work which suited her education. Helping her to have a more satisfying time recreationally, at the same time helping her to discuss her feeling of sorrow over her husband's death, helped in the social adjustment of this patient.

This preventive program includes the control of disease where there is a specific medical plan to be followed by the patient, such as in diabetes, pernicious anemia, syphilis, and gonorrhea. It also includes those diseases which may recur, such as heart disease and nephritis, and those diseases where complete cure is possible but where a potential danger of recurrence remains if the individual is subjected to much strain, as in tuberculosis.

The actual medical treatment recommended in these cases is full of social implications. It may mean that medical treatment will include change of habits or complete change of a way of life; complete

rest may be recommended, or perhaps careful clinic observation for a long period. There are some who need various kinds of apparatus, others convalescent care, others nursing care in the home. The social worker is concerned with these social problems which arise out of the nature of medical treatment, but again she finds that quite often social obstacles of some sort interfere with a successful execution of such plans. These obstacles may be physical deprivations, such as unsatisfactory home environment or lack of income, or they may be attitudes or responses to illness. It is obvious that treatment cannot proceed unless these impediments are removed. Here again we find that knowing the social aspects of the specific medical situation is not enough. We need to know the individual with whom we are dealing, how the social situation affects the patient as a person, and how his feeling about his illness may affect his efforts toward the control of it. The meaning of illness to any individual patient, we find, will differ from its meaning to any other person. Fear of dependency, fear of suffering, fear of death, may appear on the one hand, or the individual may welcome illness as an escape or because of need for dependency on the other. The patient, thus, may need help in understanding the implications of his illness or in accepting the limitation of it, but at the same time he may also need some concrete help in arranging to carry into the home or community the medical care begun in the clinic. It may mean adjustment of the environment or adjustment of plans of living.

A twenty-seven-year-old man with moderately advanced tuberculosis, Mr. B, might be used to illustrate the social worker's role in the control of disease. The

doctors believed that with one or possibly two years of sanatorium care Mr. B would be able to return to his role of wage earner again, and to a rather satisfactory life. When the recommendation of sanatorium care was first made, Mr. B accepted it without much question and wished the worker's help in arranging for it, for examination of his wife and child, and for plans for his care until he could be admitted to the sanatorium. The wife and child would go to the home of her family in another town. It was not until later that he rebelled against the doctor's recommendation, returned to work, and refused the plan of sanatorium care. The social worker in her attempt to understand why Mr. B felt as he did, learned that giving up his role as wage earner had a great deal of meaning for this patient, which he did not at first realize. He was afraid that he would lose his opportunity for employment when he was again able to work; he felt that he was shirking his role as wage earner if his wife had to accept care from her parents; and, even more fundamental than that, he was afraid that he might lose his wife's affection if he were sick and unable to provide for her. The social worker was able to help Mr. B think through these feelings. He received some reassurance from his employer that if there wasn't a job for him when he returned to normal life again, a recommendation of his good work record would help him secure employment elsewhere. By directing Mrs. B to a community social agency for help Mrs. B was able to continue the maintenance of a home for herself and child in the city thus making it possible for her to be close enough to the sanatorium to make frequent visits and at the same time giving Mr. B the security

in the fact that his home was not broken up.

In certain diseases of public health interest such as syphilis, gonorrhea, tuberculosis, the social worker in the clinic is responsible to the community as well as to the individual. Examination of contacts and discovery of the source of infection, although a public health problem because it involves social relationships of individuals, falls into the sphere of social case work.

In the case of the severely handicapped person, quite often there is no consideration of prevention or recurrence of progress in the disease, but the prevention aspect does appear in relation to disability. The restrictions imposed by such a handicap may affect the satisfactory social adjustment of the individual. The social worker concerns herself with the readjustment of an individual to his physical handicap and assists him to find a satisfactory role for himself in his family and community. The crippled child, young man or woman may need vocational help to assist in his rehabilitation. The community often offers many resources in the rehabilitation of the handicapped and where the problems of the handicapped person are primarily social, he will often receive adjust-

ments through the community rather than through the hospital.

This problem of prevention from disability also occurs in chronic disease. In the case of a diabetic patient the social worker helps him and his family to participate fully in the execution of an essential medical regimen but at the same time she will assist the patient to adjust to and accept chronic disease while leading as active and interesting a life as possible. This is true also in individuals with rheumatic heart conditions; arrangements are made for the maintenance of the necessary regimen, but at the same time the child often needs help in adjusting to his illness, restricting his activity but learning participation and self-sufficiency.

Through this broad use of the term prevention, almost the entire function of the clinic and the social worker in the clinic can be included. The public health emphasis upon prevention is enlarging the function of the clinic to bring its activities into the patient's life before disease has actually developed. And the services of the clinic or hospital do not cease until the individual has been restored to health and the chances of recurrence are minimal or until plans have been set in motion in achieving the fullest possible health.

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CHAPTER XVI. CLINICAL AND PATHOLOGICAL LABORATORIES

I. Laboratory and Diagnostic Facilities in the Small Hospital, *by John C. Leonard, M.D.**

THE size of a hospital is no criterion of the value of the service it renders. The laboratory and diagnostic facilities play an extremely important part in making it possible for the small hospital to maintain the highest possible standards. It is well recognized today that the treatment of the patient cannot be adequate if the diagnostic facilities are inadequate, since diagnosis is the basis of all rational therapy.

Formerly, a small, dark, relatively inaccessible room in the hospital was chosen for the laboratory, and the older physicians who had not been trained in its use were likely to avoid it and feel that it was an unnecessary "frill." As the value of the laboratory became more widely recognized, more spacious and more adequate quarters were chosen and equipment was installed in keeping with the practical needs of the hospital. From a small room where the blood count and urinalysis were performed for an occasional patient, there gradually developed a laboratory equipped not only for routine blood counts and urinalyses but also for serology, bacteriology, chemistry, microscopic pathology, and, more recently, for cardiography, basal metabolism tests, and even for blood and plasma banks.

No laboratory should be judged alone by the magnificence of its equipment or by the quantity of tests performed. These mean little if they are not used by the staff to complement the carefully taken history and physical examination of the patient. The technician, if she is properly trained,

can provide excellent laboratory data but she should not be expected to interpret these findings for the physician. Interpretation is the work of the pathologist or laboratory director or the physician himself.

The average small hospital cannot afford to maintain the services of a full-time pathologist, but the services of a pathologist who is a diplomate of the American Board of Pathology should be made available on a part-time basis or, at a bare minimum, in the role of consultant. If the services of a well-trained pathologist are only occasionally available, he should at least be present at the monthly staff meetings. The tissues from surgical cases and necropsies should be sent to him for microscopic section. A part-time expert is better than a full-time novice; however, a member of the hospital staff, frequently a young physician who is interested in the laboratory, can act as adviser to the technician and can interpret the laboratory findings in the light of the problem presented by the individual patient.

The technician should be a graduate of an approved school and should be a registered technologist. It is frequently suggested that the laboratory technician and the x-ray technician can be one and the same individual. In my experience it is very rare to find a technician who is well trained in both fields and who can render adequate service in this difficult combination. The problem of the overworked

* Adapted from *Hospitals* 16:20-22, April 1942.

laboratory technician is usually solved by having a pre-technician student in the laboratory. In return for her experience and a small monthly fee she is usually willing to share in the emergency night and week-end work.

The technician must not be a "clock-watcher" but must be imbued with the spirit of service if the laboratory is to maintain its high place as an aid in the diagnosis and, therefore, in the adequate treatment of the patient.

Any criticism of the technician or her work should be made to the pathologist or clinician in charge of the laboratory rather than to the technician herself, if the proper morale is to be maintained. It must be kept in mind that in the long run laboratory findings are more likely to be correctly reported than interpreted. Repeated laboratory results showing a trend are more likely to be helpful diagnostically than are single isolated laboratory results. For example: A patient who has a right lower quadrant abdominal pain is admitted to the hospital with a tentative diagnosis of acute appendicitis. The admission white blood cell count discloses a total of 6,000 with the following differential count of the blood film: nonsegmented neutrophils 15 per cent, segmented neutrophils 60 per cent, lymphocytes 20 per cent, and monocytes 5 per cent. A count taken two hours later, while the patient is under observation, shows again a total white blood cell count of 6,000 with 30 per cent nonsegmented neutrophils, 60 per cent segmented neutrophils, and only 10 per cent lymphocytes. The surgeon then realizes that further observation is unnecessary since the rising percentage of nonsegmented neutrophils indicates that the infection is progressing, despite the finding of a repeatedly normal total white blood

cell count. Also, in the above instance, the red blood cell sedimentation rate will remain within normal limits if the appendix has not ruptured or an appendiceal abscess has not formed, while the sedimentation rate will be very much increased if the right lower quadrant abdominal pain is caused by salpingitis rather than by appendicitis.

It has often been found helpful to have the laboratory technician attend the monthly or weekly staff meetings. This has a tendency to increase her feeling of responsibility and demonstrates to her the value of her work as it can be related to the adequate care of patients, from the standpoint of both diagnosis and follow-up care.

The majority of well-trained technicians today are able to perform the technique of the electro-cardiogram and the basal metabolic rate. Here again, the technician should be neither asked nor expected to render an interpretation. If there is no member of the small hospital staff who has had training and experience in the use of these diagnostic procedures, it is usually possible to encourage one of the younger physicians to take postgraduate work in this field. As an added factor of practical help, the hospital board, or a philanthropic member of the hospital community, can sometimes be found willing to finance such a postgraduate scholarship of two to four months' duration in a university medical center.

With the rapid advances in laboratory medicine, we must insist that our technicians take "brush-up" courses at frequent intervals. Only as the laboratory technician keeps up to date will she be able to render the complementary service to diagnosis which every patient who enters the hospital deserves and has a right to expect.

A hospital is often judged, and rightly so, by its post-mortem percentage. The hospital with a full-time pathologist and an alert, progressive medical staff finds it relatively easy to maintain a high post-mortem percentage. Where the pathologist is not readily accessible, it is extremely difficult for the staff to maintain enthusiasm for the necropsy, since, frequently, none of their members has been adequately trained in this branch of medicine. If the tissues can be sent to a consulting pathologist, however, and he can be present at the regular staff meetings to discuss the gross and microscopic findings, enthusiasm and good results can still be maintained. Physicians who have no fear of facing the necropsy findings on their patients are thereby enabled to continue their medical education within the confines of the small hospital.

Obviously, the great majority of small hospitals cannot afford the services of a full-time roentgenologist any more than they can afford to have a full-time pathologist. If a diplomate of the American Board of Roentgenology is available, he should be added to the staff on a part-time basis. If no diplomate is available, then the most skillful x-ray man of the hospital community should be engaged by the hospital. Many small hospitals engage a roentgenologist to be present for several half days each week, and send emergency films to him by mail or by car, as indicated, in the intervals between his visits. This is preferable to relying upon the services of a novice.

The roentgenologist should be available for consultation with the physicians upon whose patients he has performed x-ray examinations. He should also be present at the regular staff meetings. He and the pathologist by being present at staff meet-

ings have a splendid opportunity to suggest ways and means to the staff men for increasing diagnostic and therapeutic efficiency in the hospital. These suggestions are likely to be well taken since neither man is in competition with the physicians of the hospital community. Occasionally one still finds a hospital where an x-ray technician has been hired to take the films and each physician reads the x-rays of his own patient. This is mentioned only by way of strong condemnation. On a par with it, and just as unsatisfactory, is the method whereby the x-ray films are interpreted by the technician. Both methods can create a false sense of security in that the patient is satisfied because "an x-ray has been taken." It is much better to have patients referred elsewhere than to resort to either of the above practices.

Fluoroscopic examinations can be carried out by the roentgenologist. The use of the hospital fluoroscope should, however, be exclusively under the supervision of the roentgenologist if x-ray accidents are to be avoided.

Portable x-ray units are growing in popularity and are certainly very helpful additions in any hospital where much traumatic work is done. Here again these units should be under the close and watchful supervision of the roentgenologist if x-ray burns to both the patient and the operator are to be avoided. Portable units should all be equipped with an automatic fluoroscope timer to act as a reminder of the duration of exposure to which the patient is being subjected.

It is generally unwise for a hospital to undertake x-ray or radium therapy unless the services of a full-time radiologist are available. Equipment for this type of work is also much more expensive than the majority of small hospitals can afford. Only

the man with special training in this field can properly control its use and prevent its abuse.

The most important stimulus toward providing adequate diagnostic and therefore adequate therapeutic service for the patients in the small hospital is the will to serve. This will to serve must be present

not only in the medical staff and the consultants, but also in the technicians, the nurses, and the administrative staff. If this will to serve permeates the entire hospital organization, we need have no fear for the quality of service which will be rendered to the patients in that hospital, be it large or small.

2. The Advantages and Dangers of Blood and Plasma Banks, by *Jonathan E. Rhoads, M.D.**

THE American Hospital Association and the author are greatly indebted to a number of physicians throughout the United States and Canada for valuable suggestions and criticisms of the preliminary draft of this manuscript. These men constitute a representative group of investigators and administrators interested in blood and plasma banks in North America. Many of their suggestions have been incorporated in the present text. It has not been possible to bring the text into full alignment with the views of all of these men as opinion varied on certain points. In order to avoid giving the impression that the manuscript as a whole is endorsed by them no individual acknowledgments have been made. Their counsel has been drawn on very freely and the manual is now in substantial agreement at almost all points with a majority of the views expressed.

No attempt has been made to present a complete review of the literature. The work of various authors is referred to in substantiation of certain points but such references do not necessarily imply priority. Reference to many other excellent papers on the subject has been omitted solely for the sake of brevity.

The manuscript was prepared with the purpose of presenting the advantages and the dangers of blood and plasma banks so that members of hospital staffs who

were considering the establishment of such banks could familiarize themselves with the subject as quickly as possible and with the purpose of answering some of the questions which arise in connection with blood banks both before and after their inauguration.

Blood transfusion became practical only after blood types were recognized and satisfactory methods for typing and cross agglutination were developed. Before this was accomplished transfusion had earned itself a bad name. Consequently, it was practiced with great caution in many hospitals between 1915 and 1920. It was believed to be important to give the blood as soon as possible after it was drawn and to cross match each donor with the recipient after his last transfusion. With this system every transfusion was custom made and a large portion of the intern's time was often taken up with the transfusion of one patient.

The realization that blood could be stored for periods of several days with little if any danger made it possible to put transfusion on more of a mass production basis. Now the donors are tapped regardless of type. The blood of several donors is drawn when it is convenient, either before or after the patient for whom the donors came to the hospital has received

* Adapted from *Hospitals* 16:80-87, Aug. 1942.

a transfusion from the bank. The necessary laboratory tests are done in large groups or batches by technicians who are specialists in these tests and the blood is made available not only in one-half pint or pint quantities but in quart and one-half gallon amounts when needed. The blood storage depot or blood bank, as it is usually called, has been rapidly adopted by many hospitals throughout the country. This change was stimulated by an increased demand for blood and a new demand for plasma due to broadened conceptions of the indications for transfusion.

Blood transfusion was first used to replace blood loss. Soon it came into use in the treatment of anemia, that is for the replacement of the oxygen-carrying capacity of the blood. Continuous study has resulted in the recognition of new functions of the blood and in the recognition of deficiencies of certain constituents of the blood.

Now transfusion is recommended for the replacement of the red blood cells in anemia, to supply a stimulus for the manufacture of new leukocytes in agranulocytic angina, for the replacement of the thrombocytes or platelets in thrombocytopenic purpura, for the replacement of plasma volume in shock, for the replacement of plasma protein in hypoproteinemia, for the replacement of prothrombin when a deficiency of this factor cannot be overcome with vitamin K, for the passive transfer of immune bodies to increase resistance to infection, and to stop hemorrhage when other methods fail to maintain the coagulability of the blood as in hemophilia.

Almost all of these deficiencies have been known to exist in certain patients for a long time. Their significance has not always been realized fully. Hypoproteinemia is a good example of this. In its severe chronic forms this condition has been

known for centuries as hunger swelling, prison dropsy, etc. It is now known that it frequently appears in surgical patients, especially those suffering from disease of the gastro-intestinal tract. Ravdin and his associates have shown that it delays the emptying time of the stomach, that in patients after gastric operations it may produce persistent vomiting, that it may prevent normal wound healing and so result in wound rupture and evisceration. It seems also to delay the formation of callus in experimental fractures and there is recent evidence that it is a conditioning factor for the development of bed sores and so-called trophic ulcers.

The realization that hypoproteinemia, which formerly was little more than an abstract idea, has practical bearing on such matters as the success of gastric operations and the disruption of wounds has greatly increased the demand for transfusion.

The need of such patients for blood has been there always but it is only recently that it is being fully realized. The extent of this change in civilian hospitals is surprising. In a recent survey of the use of transfusion at the Pennsylvania Hospital in Philadelphia, Dr. John T. Bauer found that the number of transfusions had increased about 300 per cent between 1935 and 1940.

The cells of the blood are heavier than the fluid component by about 6 grams per 100 cubic centimeters. If clotting is prevented they slowly settle out upon standing. This separation can be greatly accelerated by centrifugation but as the blood has to be transferred to special bottles capable of withstanding the high pressures built up in the centrifuge and as these bottles and the equipment for the transfers have to be sterilized, this procedure is somewhat cumbersome. In many banks

the supernatant plasma is merely aspirated after the cells have settled by gravity.

Plasma can be given without typing or cross matching because usually it is sufficiently diluted by the recipient's plasma to prevent agglutination of the cells. Thus it can be given in acute emergencies in which time for matching blood—seldom less than half an hour including procurement of specimens—cannot well be spent. Furthermore, severe reactions are much less common than with the whole blood. The plasma of several donors should be pooled if possible as an additional safeguard against a reaction caused by a particular plasma of unusually high titer.

The second great advantage of plasma is that it can be stored for long periods of time in an icebox without deterioration. In the frozen state it can be stored safely for periods of over a year.

A third advantage is that it can be concentrated or even dried *in vacuo* from the frozen state. In the dried state it can be stored indefinitely at room temperature. The processing is expensive and as it is not an essential part of the operation of blood banks in civilian hospitals it will not be discussed in detail here.

It has been shown by Best and Solandt that shock produced by hemorrhage is fatal on account of the decline in blood volume rather than on account of the decline in the oxygen-carrying capacity of the blood. They found that plasma was entirely satisfactory in saving the lives of their experimental animals after hemorrhage and it is now a matter of clinical experience also that plasma is effective in the treatment of shock associated with hemorrhage unless there is a pre-existing anemia or unless there is continued blood loss (Elliott, Tatum and Busby).

There are certain conditions in which plasma is needed but in which the red cells

appear to be undesirable. In severe burns and in certain other types of shock there is a loss of plasma without much loss of cells. The blood becomes thick and its viscosity increases far out of proportion to the rise in cell volume from a normal of 45 per cent to 55 or 60 per cent. The addition of whole blood adds cells to a circulating fluid that is already too thick and if the plasma in the transfused blood is lost by the recipient a further rise in the cell volume is to be expected.

The loss of plasma in burns frequently amounts to 40 per cent by volume and to over 50 per cent in terms of grams of circulating plasma protein. Almost all of this loss occurs within a few hours. Not only does this loss need to be replaced but as the leakage of plasma continues for at least twenty-four to forty-eight hours it has several times been necessary to give more plasma than the patient originally had in his entire circulation. This may amount to over 3 liters or the amount of plasma derived from ten or twelve donors. The practical difficulties of securing this number of donors, doing the serological tests for syphilis, drawing the blood, and separating the plasma after the patient is burned are almost insuperable, but with a blood and plasma bank such treatment may be given and we feel that several patients treated in this way owe their lives to the availability of large volumes of plasma.

During long operations it is frequently necessary to add to the blood volume. Either blood or plasma may be used but the immediate availability of stored plasma without cross matching, its miscibility with other fluids used for intravenous infusions, its lower viscosity—permitting a better flow through a small needle—all make it the agent of choice for treatment of shock on the operating table.

The relative value of plasma and serum

has been the subject of dispute. Plasma is separated from citrated blood and contains the fibrinogen whereas serum is separated from clotted blood and does not contain the fibrinogen. The fibrinogen is of little importance from the standpoint of colloid osmotic pressure. There are two important differences between plasma and serum. The first is that certain investigators believe that serum is more likely to cause reactions than plasma unless special care is taken in its preparation. The second is that masses of fibrinous material of various size form in plasma after prolonged standing; this does not occur in serum. This disadvantage of plasma is readily overcome by filtering it through gauze shortly before its administration.

From the standpoint of the operation of a blood bank there are practical advantages in favor of plasma because it is a natural by-product of citrated blood which is not used within the safe period for the storage of whole blood.

THE EFFECT OF STORAGE ON THE CONSTITUENTS OF THE BLOOD

Any discussion of this subject must take into consideration the temperature at which the blood is stored. For instance Panzer found, in the laboratory of the Harrison Department of Surgical Research, that the prothrombin concentration of the blood would decline further in 12 hours at 37° C. than in a week at 4° C. Similar differences have been noted for the fragility of red blood cells by DeGowin, Harris and Plass. It is probable that some of the discrepancies in the literature on the effect of storage on certain of the constituents of blood are to be explained by differences in the promptness and thoroughness with which the blood is refrigerated.

The accepted temperature for blood

storage is 4° C. and the following data assembled from the literature are based on storage at or close to this temperature. Except where otherwise stated the data refer to citrated blood stored without dilution with dextrose solution.

Red blood cells. Storage affects the fragility of the red cells. In the blood bank at the Hospital of the University of Pennsylvania, Allen found that after one week the cells hemolyzed in sodium chloride solutions with concentrations of 0.6 per cent as compared with concentrations as low as 0.35 to 0.45 per cent required for hemolysis of normal red blood cells. Furthermore, some of the cells hemolyzed when transferred to physiological saline solution (0.85 per cent).

DeGowin, Harris and Plass found that actual hemolysis occurred in all stored blood after long periods of time but that the amount of hemolysis could be decreased at least 96 per cent by the addition of a large quantity of dextrose solution as suggested by Rous and Turner. The amount of dextrose used by DeGowin, Harris and Plass was for 10 parts of blood.

13 parts of 5.4 per cent aqueous solution of anhydrous dextrose
with 2 parts of 3.2 per cent aqueous solution of dihydric sodium citrate.

The actual red blood cell count does not decrease in citrated blood in a fifteen-day period (Drew and Scudder) nor in heparinized blood in a thirty-day period according to Drew, Edsall and Scudder. Fox reported a number of instances of hemolytic jaundice following the transfusion of stored blood. Strumia observed that transient jaundice often occurs after the transfusion of blood stored for over ten days. It occurs less frequently with blood from seven to ten days old and very seldom with blood less than five days of age.

This is no doubt another aspect of the same phenomenon and has led to several studies on the survival of the red blood cells of stored citrated blood after transfusion. The technique consists essentially in the transfusion of the blood of a universal donor to a type A or B patient. At intervals after transfusion samples are drawn from the recipient, the recipient's own cells are agglutinated out by the addition of the appropriate serum, and the remaining cells are counted. A certain correction is made for nonagglutinable cells in the recipient's blood before the transfusion.

Using this technique, varied results have been obtained but the consensus of recent reports is that whereas the red cells of fresh blood survive up to ninety-five days, with seven-day-old blood 70 per cent of the red cells survive fourteen days (Maizels and Paterson), with eleven-day-old blood some cells survive up to seventy to ninety days (Mollison and Young), and in general the red cells of blood kept the usual lengths of time survive long enough to be useful (Bushby, Kekwick, Marriott, and Whitby). Levine found that the life of the cells of three-day-old blood was eighty days, ten-day-old blood sixty days, but fourteen-day-old blood only twenty days.

Certain other properties of the red cells have been studied. Austin found little change in the oxygen carrying capacity up to ten days. The potassium content of the cells goes down and their sodium content goes up. The reverse occurs in the plasma (Scudder, Drew, Tuthill and Smith). This indicates a change in the permeability of the red cell membranes. The extent to which this occurs was given by Maizels and Paterson. Sodium rose to 142 milligrams per cent in the cells but fell again to 33 milligrams per cent after the cells had

been placed in the circulation of the recipient for a few days.

The question of whether the excess potassium in the plasma would have a toxic effect on the recipient was studied by DeGowin, Hardin and Harris, who concluded that their mixture (which is 40 per cent blood) would not be toxic at rates of administration up to 43.3 cubic centimeters per minute. DeGowin, Harris and Plass found that the diffusion of the potassium from the red cells proceeded rapidly for five days and then slowly to a maximum in fifteen or twenty days.

The white blood cells. The leukocytes begin to show degenerative changes within twenty-four hours and their phagocytic activity for the beta hemolytic streptococcus, for the staphylococcus aureus, and for the colon bacillus is definitely reduced in seventy-two hours (Hoxworth and Skinner).

According to Bull and Drew, the leukocyte count falls 50 per cent within the first twenty-four hours and then declines more slowly. The neutrophils fall first and the eosinophils and basophils are more resistant.

The platelets. There is general agreement that the platelets disappear rapidly from stored blood (Bull and Drew, and Belk, Henry and Rosenstein). Drew and Scudder found that the platelet count fell to below 100,000 in twenty-four hours and to 40,000 in three days. A report in the French literature, however, states that in three cases of acute thrombopenia the hemorrhages were stopped by transfusion of blood stored ten days. The liberation of thromboplastin into the plasma by the disintegrating platelets and disrupted cells might compensate for the platelet deficiency in the recipient (Smith).

Inorganic solutes. The exchange of potassium and sodium between cells and

plasma has already been discussed. Scudder, Drew, Tuthill and Smith found that the calcium concentration remained constant after nine days—in citrated blood the calcium is largely in the form of nonionizable calcium citrate—the magnesium diffused too slowly to be toxic, the ammonia nitrogen rose one milligram per 100 cubic centimeters in four days, the carbonate and chloride ion concentrations fell, and the phosphate ion concentration rose. None of these changes was believed to injure the recipient directly. The rise in the ammonia content may affect the permeability of the red cell membranes.

The serum protein. The serum protein concentration remains fairly constant in stored blood. That certain changes do occur is suggested by the electrophoretic curves obtained by the Tiselius apparatus (Scudder) but these changes are not known to be of practical significance. Kreamer states that proteolysis is not a danger in the use of stored blood.

Prothrombin. Investigations are at variance regarding the degree of the decline in prothrombin activity but all are agreed that there is a decline. Rhoads and Panzer, Quick, Lord and Pastore—using Quick's methods for the determination of prothrombin—found relatively rapid declines (up to 50 per cent in three days). Lord and Pastore—using the method of Smith, Warner and Brinkhous—and several other groups found only slow declines. The value of transfusion for prothrombin deficiency lies in the excess of the prothrombin content of the donor's blood over the prothrombin level at which hemorrhage will stop in the patient. It is, therefore, readily seen that if this level is 20 per cent, fresh blood from a normal donor should be twice as effective as blood containing 60 per cent of the normal level.

Complement and antibodies. Hoxworth

and Skinner state that complement is well preserved for fourteen days but that the bactericidal activity for the beta hemolytic streptococcus, for the staphylococcus aureus, and for the *E. coli* is decreased after seven days.

Summary. From this partial summary of the literature it seems fair to conclude that citrated blood stored at 4° C. is satisfactory for the replacement of red blood cells for five days but that after seven days it is liable to produce jaundice in the recipient. Many of the cells transfused will live for several weeks.

Unless the blood is stored less than twenty-four hours it will have lost a large proportion of its leukocytes and platelets. Therefore, it seems better to insist on fresh blood when the transfusion is indicated to replace either of these two constituents.

For hemorrhage due to prothrombin deficiency stored blood may be of some value but is definitely inferior to fresh blood and individual bottles may be greatly inferior.

For building up resistance to infection the value of stored blood is unsettled. Certain specific immune sera have been successfully preserved for long periods of time in the dried state by McGuinness, Stokes, and Mudd. On the other hand, the antibacterial activity for three common bacteria is decreased after seven days. The leukocytes do not last this length of time. It would seem wiser in the present state of our knowledge to use fresh blood for this purpose except when a specific antiserum of established potency is available for the purpose in view.

For hypoproteinemia and for shock, stored blood is satisfactory as long as the red cell fragility is not significantly increased. After this time (six days according to Fox) the cells may be separated and

the plasma will be satisfactory for at least a month and probably for a considerably longer period.

Bank blood and plasma are, therefore, suitable for all the common indications for transfusion, anemia, hemorrhage, shock, and hypoproteinemia, but should not supplant fresh blood for the less common indications, agranulocytosis, thrombocytopenia, hypoprothrombinemia, and poor resistance to infection.

THE PRACTICAL ADVANTAGES OF A BLOOD BANK

There are three important advantages in the use of a blood bank. The first is that it permits systematic collection and testing of donors' blood. This means a great saving of time. If eight transfusions are required in the various departments of a hospital between 4:00 a.m. and midnight it will frequently be necessary to perform serological tests at three or four different times if there is no blood bank. If there is a blood bank all of these tests will be run once a day and the blood previously tested will be ready for use.

Furthermore, if the laboratory work through the day is performed by technicians and at night by house officers, it is probably better to have all these tests run during the day so that they will be done by the same person. All the blood can be typed and tested for sterility by the technical staff and a majority of the cross matchings also can be done in the daytime. It is still necessary to do cross matchings for emergencies at odd hours but here the use of plasma which requires no cross matching has greatly reduced the need for whole blood.

The second important advantage of the blood bank is that it facilitates the separation of plasma. A few persons used plasma

before the development of blood banks but in spite of the fact that its theoretical advantages were known its practical value was not recognized until it became available in quantities as a natural by-product of blood stored too long for the safe use of the cells. Where it is available its value has been rapidly endorsed by frequent calls for it. Thus at the Pennsylvania Hospital it was used during the past year one-third as often as whole blood.

It seems definitely superior to whole blood in the treatment of shock due to burns and in other forms of shock when the hematocrit reading is high. It is more satisfactory for the support of patients during long operations because it is more easily administered and there is less chance of reaction.

The third important advantage of blood and plasma banks is the availability of large amounts of blood or plasma on short notice. Formerly a 500 or 600 cubic centimeter transfusion was accorded patients in shock and it was then considered good practice to cross match the patient's blood with the next donor before giving another 500 or 600 cubic centimeter amount. We now realize that 2,000 or 3,000 cubic centimeters of blood given continuously makes some operations possible which could not have been successfully performed in the past.

A striking example is that of a girl admitted to the Hospital of the University of Pennsylvania shortly after the establishment of a blood bank there. She had been in an automobile accident and had sustained a head injury and a contusion of the abdomen, as well as multiple lacerations. At first the head injury seemed to be the most threatening factor but at the end of four hours the abdominal signs became prominent and it was apparent that

she would require a laparotomy. The blood pressure fell to 70 about this time and all the signs of profound shock appeared. While the first 500 cubic centimeters of blood were running in, three more pints of blood were cross matched. The operation was begun at the end of the first pint. A rupture of the liver with a long tear near the hilum was found and sutured with considerable difficulty. Throughout the procedure blood ran into a vein and the blood pressure rose progressively. At the end of the operation she had a total of 2,000 cubic centimeters of blood and her blood pressure was normal. Her subsequent recovery was uneventful.

Such situations are unusual on any one service but when one includes certain cases of bleeding peptic ulcer, certain cases of ruptured ectopic pregnancy, and an occasional case of unexpected severe hemorrhage during operation or delivery, the majority of large hospitals will have several cases annually in which the availability of stored blood and plasma will appear to save a life.

A lesser advantage is the facility with which blood may be saved from patients in which less than the anticipated amount had to be given and used for patients who could not furnish an adequate number of donors. In the past certain patients who could not afford professional donors had to go without needed transfusions if their friends or relatives were of the wrong types. With a blood bank this situation is met by exchanging blood from the patient's donors for blood from donors of the correct type. Another minor advantage is the greater facility with which blood of the less common blood types is made available. Before the days of the blood bank the interns of one Philadelphia hospital had to type one hundred prospective

donors in order to obtain one type AB donor for a particular patient, and a dozen or so typings was not uncommon in looking for types B and AB. With a blood bank in operation available donors are tapped regardless of type and as the types among donors are distributed in the same proportion as types among recipients the various kinds of blood are usually available in the proportions required.

On occasion a few patients of an unusual type will require multiple transfusions at the same time and the demand for this type of blood will exceed the supply in the bank. Under these circumstances it seems justifiable to sell bank blood supplied by friends of ward patients to private patients and to use the proceeds to buy scarce types of blood for ward cases whenever the demand exceeds the supply, without limiting the indications.

The disadvantages are: (1) the waste of blood that turns out have a positive Wassermann; (2) the waste of cells that are not used within a suitable time; (3) the blood bank saves so much laboratory work that there is a tendency for the members of laboratory staffs to discourage the use of fresh blood transfusions even for the special purposes for which stored blood is unsuitable; and (4) the postponement of needed transfusions because there is no blood in the bank.

The first disadvantage could be overcome by testing the serology prior to tapping the donor but as in almost all areas only the occasional blood donation has to be discarded on this count this is not often done. The donor is of course repaid for his blood by the information that he needs antiluetic treatment. In the future it may be possible to use stored blood or plasma from luetic patients with safety, but in view of the medicolegal aspects of the

situation it does not seem safe to endorse such a practice as yet. Turner, Bauer and Kluth and Turner and Diseker have studied this problem and believe that the *treponema pallidum* loses its infectivity under conditions obtained in blood banks.

The waste of cells is the inevitable price of the added availability of the blood. The advantage of having a supply of plasma more than compensates for it.

The third and fourth disadvantages should not arise; nevertheless, they do arise in some hospitals and the organization of the blood and plasma banks should take them into consideration.

The incidence of reactions following the use of stored blood has been satisfactorily low in several long series (DeGowin and Hardin, Hneleski, Hoxworth and Skinner) so that there would not appear to be any disadvantage to the use of stored blood in this connection as long as it is used early enough to avoid jaundice (not over five days).

THE EQUIPMENT REQUIRED FOR A BLOOD BANK

There is much difference of opinion regarding the best types of container for blood storage. A relatively tall narrow container reduces the area of the interface between the sedimented cells and the plasma. This is said to retard the shift of potassium from cells to plasma to delay the onset of hemolysis and to give a greater yield of plasma (Scudder). However, these are probably not essential advantages. Other investigators have attached much importance to using a flask in which the stopper can be replaced with one with a tube through it so that the flask need only be inverted when the transfusion is given. Again the advantage of this system does not seem paramount and any flask or bottle which can be efficiently cleaned,

sterilized, and stoppered in a way that will maintain the sterility of the mouth of the container as well as of its contents should be satisfactory.

It is important that the blood be drawn by a closed method. The sample for typing, cross matching and for serology are taken in separate tubes and fastened to the flask along with an identification card. The flask need then be opened only once, to test its sterility. Some laboratories have dispensed with this test but the more conservative opinion remains in favor of testing the sterility of stored blood routinely.

The most important item of new equipment for a blood bank is an efficient refrigerator of sufficient capacity. It is preferable, though not essential, to have the refrigerator equipped with a recording thermometer. It is unwise to permit the use of the refrigerator for other purposes as frequent opening of the door allows the temperature to rise.

Any arrangements for typing and cross matching that have proved satisfactory for fresh blood transfusions should prove satisfactory with stored blood.

The blood may be administered with the usual intravenous infusion apparatus provided that two or three layers of sterile gauze cover the top of the burette so as to act as a strainer when the blood is poured in. If more than a single pouring is required this strainer should be protected from air-borne bacteria by means of a second sterile gauze cover laid over the top between pourings.

The blood should not be heated before infusion as this tends to increase the incidence of reactions. It may be given cold or may be allowed to stand at room temperature prior to its administration.

Plasma may be separated by aspiration with another donors' set after the cells have settled out. It is an advantage, how-

ever, to have sterile 250 cubic centimeter centrifuge bottles into which the blood can be transferred with sterile precautions in the event that plasma is needed suddenly at a time when none has separated. Almost all standard laboratory centrifuges can be fitted with a head and trunion cups capable of swinging the 250 cubic centimeter bottles.

It is of the greatest importance that all of the equipment with which the blood comes in contact be properly cleaned, dried and sterilized. Freshly distilled water should be used and the drying and sterilizing steps should follow the final rinse within a few hours so that there will be no opportunity for the growth of pyrogenic organisms on the wet surfaces.

THE ORGANIZATION OF A BLOOD BANK

The Philadelphia General Hospital has a donors' clinic staffed by nurses who have learned to do venipunctures. Except for large hospitals this plan, while ideal in many ways, will probably not be practical and the blood will continue to be drawn by members of the house staff.

Some blood banks are run by careful accounting methods according to which the deposits from each service are carefully balanced against the withdrawals and amounts discarded on account of serology, contamination, or age. Other blood banks are operated much more loosely. At the Pennsylvania Hospital the relatives of nearly every seriously ill patient are asked to furnish two or more donors "to have blood ready in case it is needed." This system has worked unusually well and while it is true that the families of some patients are bled needlessly from their viewpoint, they have the assurance that if their sick relative needs more blood than they can supply it will be forthcoming.

The particular plan for collecting the

blood in each hospital need not be the same but there are two features of the organization which should be universal. The responsibility for the management of the blood bank should be vested in one person, usually either the chief resident or the director of the laboratory, and all untoward reactions should be systematically and promptly reported to this person.

It is usually an advantage to place the responsibility for typing and cross matching on two or three permanent employees rather than on a constantly changing group of interns. The disadvantage is that if the interns must be responsible from 5:00 p.m. until 9:00 a.m. they may need the practice of doing the cross matching through the daytime too. No one form of organization will fit all hospitals to the best advantage.

In order for a bank to operate efficiently for citrated whole blood about 50 transfusions a month are required. Even at this rate there will seldom be fresh type AB blood on hand when it is needed. However, if bank blood is occasionally sold, blood of unusual types can be bought when needed. In smaller hospitals a plasma bank can be operated successfully or blood diluted with glucose solution and citrate solution, as recommended by DeGowin, can be used and stored for longer intervals than is safe with the ordinary citrated blood.

FOUR SUGGESTED RULES GOVERNING THE USE OF STORED BLOOD

1. Use the cells within five days unless the blood has been stored with a special preservative such as DeGowin's modification of the Rous-Turner solution.
2. Use the plasma within thirty days unless it is stored in the frozen state.
3. Do not depend on stored blood as a

source of leukocytes, platelets, or prothrombin, or of antibacterial substances unless they can be demonstrated.

4. Do not allow the bank to become bankrupt. An empty bank is far worse than no bank at all.

3. Success of Autopsy Program Rests on Organization and Planning, *by J. E. Blumgren, M.D.**

THE necropsy percentage is the measuring rod of medical education in any institution. It not only reflects the hospital but, to a considerable extent, the type of medicine practiced in the community. The 1943 Hospital Number of the *J.A.M.A.* reviews necropsies for 1942 and allots an average of 35.6 per cent to intern hospitals of the nation, twenty of which were above 70 per cent. St. Mary's in Duluth was fortunate in being among this twenty with a percentage of 76.9. This record has resulted in a request for a paper discussing the important phases of the program which has made such a record possible. Such is the purpose of this article.

Since 1923, when St. Mary's first obtained the services of a full-time pathologist, the autopsy trend has been upward and, in recent years, has maintained a relatively high level. The overall average since 1923 is 61.5 per cent, and for the past ten years has been 70.4 per cent. The yearly death rate covering the above periods averages 264, which is comparable with other hospitals of the same size.

The success of any program depends upon the effect and energy applied. This effort cannot be left to chance, but must be carefully organized and planned. The plan for St. Mary's includes the entire hospital personnel, staff members, interns, Sisters, nurses, and record librarians, as well as cooperation with funeral directors and other outside agencies.

Each year, soon after the arrival of the new group of interns, a luncheon is held at which the necropsy program as well as

hospital routine is discussed. At various times throughout the year like luncheons are held. The interns, administrators, and intern committee present problems for consideration. Difficult autopsy permissions as well as other problems receive an airing and many of the troublesome objections are corrected. These meetings have proved to be extremely helpful, lead to mutual understandings and, in the end, a more successful necropsy program.

Knowing the autopsy permission is his responsibility, the intern generally takes pains to establish a proper atmosphere. During the illness of the patient he endeavors to win the respect and good will of the relatives. He studies the case carefully and is able to discuss intimate details. The family often expects this of him. Methods of approach are formulated which may be used in overcoming many possible objections. Confidence in his mission and the ability to carry it out are essential. Without it, failure will be the common result. With these plans establishing the foundation, the task is easier and results successfully.

Interns and intern groups have different methods which they apply but, throughout the years, a general scheme has been developed. The major points of the scheme are passed on from group to group, each adding or subtracting to it as they see fit.

I select from these general approaches the following:

* Adapted from *Hosp. Management* 56:26-27, 62, Sept. 1943.

1. You are offering the family something they should have. Later the occasion may arise when they will be sorry an autopsy was not performed.
2. There is no charge. The examiner is especially trained and the work will be done in a room constructed for such an examination.
3. Obtain an interview before the members of the family leave the hospital. Generally allow ten or fifteen minutes to elapse, this allows them time to recover from the shock and makes the approach much easier.
4. Direct the request to the nearest of kin, or preferably to the person you feel, from previous contact, is favorable. After the first hurdle, make the request to the group with the above person acting as your assistant.
5. If possible, hold the interview in a quiet room or alcove some distance from the patient's room.
6. Remember the family must have confidence in you; be calm, deliberate, and honest. Confidence once gained, a considerable amount of resistance is overcome.
7. Explain very quietly, sincerely and courteously what will be done. Be scientific, but be sure the relatives understand.
8. Following are good selling points and their use will be beneficial:
 - a. Your doctor requests that I ask you for permission to examine the patient to determine the cause of death.
 - b. For the advancement of science.
 - c. If cancer, it is important for you and the members of your family to know.
 - d. The possibility of a finding which may be instrumental in saving a life.
 - e. Insurance, compensation, etc., are always potent points.
9. Have the permission blank on your person. Don't allow the family to change their mind.
10. Advise the relatives that a report may be obtained from their family physician or the hospital.
11. Don't give up. Many permits have

been secured by persistence, in face of a positive refusal.

12. Should refusal result despite all precautions, notify the attending physician at once. He can often obtain consent where others have failed.

Whether permission is secured or not, the intern fills out an interview slip, which lists the reason for success or failure. The name of the attending physician is also included and indicates whether he aided or not. This throws the final responsibility upon the attending physician and makes him more aware of his part in aiding the interns in securing autopsies. However, it is seldom necessary for the staff man to assist, as the interns are able to obtain a large majority without assistance.

No one thing will stimulate general interest in autopsies more than a well-conducted educational meeting where the pathology found at necropsy is discussed in connection with the clinical course of the case. For many years, Dr. E. L. Tuohy, an internist, and Dr. G. L. Berdez, pathologist, have conducted a weekly clinical-pathological conference.

Other meetings use autopsy material to a considerable extent, and the mortality report given at the monthly staff meetings always stresses pathological findings. If the autopsy examination has failed to elicit all the desired information, the pathologist is stimulated to closer scrutiny the next time. If he uncovers facts and findings lost to the clinician or radiologist, the friendly rivalry is soon reflected in better coordination and a higher autopsy percentage.

The Sisters are deeply interested in their hospital and its part in medicine and medical education. This is reflected in a modern autopsy room with adequate help available to aid the pathologist in his duties; a comfortable, well-ventilated lecture hall with up-to-date equipment for presentation of pathological material; and their

courteous consideration for patients and the relatives at all times.

They often offer a room to a grief-stricken husband, wife, son, or daughter who is a stranger in our city, especially if death comes during the night. At other times, they take relatives to a quiet reception room, offer their sympathy, and ask if there is anything they can do, such as helping with long-distance calls or telegrams. If the relatives are located in some distant city, the Sisters, at their own expense, often make telephone calls and send telegrams in contacting a wife, son, daughter or other proper authorities.

Recently, permission was obtained via cable from England. On another occasion, permission came from the high seas through the Navy Department in Washington. Such persistence is often responsible for the last 5 per cent, which is so often hard to secure.

Another feature which has proved to be highly successful and which does much in building up the competitive spirit of the intern group, is the dinner offered by the administrator each month the autopsy percentage is 80 or better. The interns work hard for this as it is an outing and evening of social enjoyment. The intern committee and two staff members are invited as guests of the interns. This does much in developing a friendly relationship between these groups. Such a prize may lead to undesired results, but under proper control and fair play it has become a very definite part of St. Mary's program.

The record librarian does her share by displaying graphs and charts on the bulletin boards in the record room and staff lecture hall. These tell the story from month to month as well as by years. A copy of the pathologist's report is sent from the record room to the attending physician. The presence of the graphs and the

various courtesies performed by the record librarian play no small part in the final monthly or yearly necropsy percentage.

All nurses are invited to attend post-mortem examinations, and student nurses are required to observe a certain number during their training. The pathologist considers their presence as part of the educational program and makes an effort to point out pathological as well as normal anatomy. As a result, the nursing staff often lends material aid in securing necropsy permission. It is not unusual for the intern to discover that many of the would-be hurdles have been efficiently handled by the nurse in charge.

The funeral directors in Duluth, for the most part, are very cooperative. In some instances they have prevailed upon the relatives after medical and hospital authorities have failed. On occasion they have embalmed the body and held it in their establishments waiting permission from a relative in some distant city. Such an attitude has developed through close cooperation between the pathologist and the embalmer. The former listens to suggestions of the latter, realizing that embalming entails many factors, some of which are not well appreciated by medical men.

Close cooperation is maintained between the hospital and the coroner and the various public and private social agencies. Not a year passes in which these agencies do not aid in obtaining the necessary permission in a difficult case.

Many of the above points are routine, others, I believe, are unique and deserve the consideration of all hospital administrators. Undoubtedly many will question some of the points in the program; however, I do not question them and know they have proved to be very successful in our autopsy program.

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CHAPTER XVII. PHARMACY

I. What the Pharmacy Does for the Patient, by Ray M. Amberg*

IT has been said that the oldest of the medical specialties is pharmacy. The oldest hospital practices concerned themselves with the administration of drugs and drug therapy. The earliest forms of empirical therapy were the use of drugs, many of which have been tested scientifically in recent years and have earned the right to be kept on the active lists of hospital *material medica*. The early antiseptics and anesthetics came from the shelves of drug rooms and still account for a major percentage of the common useful items used for these purposes in a still very satisfactory and very efficient manner.

With the advent of the germ theory of disease many of the drugs that formerly were considered to be a panacea and even a specific for certain illness and disease fell into bad repute and were relegated to a dusty spot in the corner of the drug room stores. Newer and reputedly more scientific preparations and concoctions of the pharmacological laboratory crowded the old timers so badly that old champions, such as strychnine sulphate, took the count from the newer, supposedly faster and more effective gland products, who themselves, with one exception, were soon counted out for their inability to defend their championship. Biologicals knocked out the other well-known enemies of pneumonia and today the sulfa drugs have just about made us forget about the serum era of a few years ago. The story has passed around now for some years that doctors fed their patients the sulfa drugs for three or four days and, in event of no recovery or improvement, began to consider the neces-

sity of doing a history and physical on these patients.

But the whole list mentioned have to cheer for their team mates, the champions of them all, the vitamins. And at the present writing B₁ is leading his team to victory. B₁ and B complex with their big brother A have of and on their own crowded into the best spots of the hospital dispensing shelves as well as the handiest shelf of the home medicine cabinet. Insulin of the newer drugs, now nearing twenty years of age, retains its dignity and standing in the therapeutic world but it is pretty much alone. The barbiturates have come under the long arm of the law in many states and so aspirin once more is king in its field after a long tough fight up the comeback trail.

But what has all this to do with the contribution of the pharmacy to the care of the patient? It merely is mentioned by way of introduction to show that a pharmacist's life in a hospital pharmacy is anything but static and as this sample is above listed but a small one of the rapid changes and trends in our forms of medication to alter the process of disease and deficiency. The pharmacy of any hospital, to be an effective factor in the care of the hospital's patients, must be a living, breathing unit of the hospital. It must have the same nourishment and fostering of the hospital administration as any other professional unit of the organization. Many years of experience in the management of hospi-

* Adapted from *Hospitals* 17:101-102, Mar. 1943.

tals have convinced me that there is no most important single unit in any hospital and that every service is about on a par as far as the care of the patient is concerned.

Specifically, the pharmacy has the assignment of the preparation, dispensing, labeling, and distribution of pharmaceuticals, biologicals, etc., to the stations of the hospitals and to the ambulatory patients of the outpatient departments. The person working in the pharmacy rarely sees the patient who is confined to the hospital and must depend upon the orders written upon the order books of the wards or upon the prescription blank filled in with an order to cover an individual or unusual situation. This is a type of service requiring the task of faithfulness, accuracy, and knowledge and skill in the profession.

The pharmacist in his application of his duties must have informed himself thoroughly in the practice of pharmacy and must keep himself informed as to both the new and older forms of therapy, of new drugs and old, of new forms of preparation as well as the older forms, because the practice of medicine in hospitals numbers among the doctors who apply it various ideas and schools of thought in regard to the use and efficacy of several hundred individual items and several thousand combinations of these. Try to dissuade a man who has had positive success in the use of a prescription to discard it because its use is considered old fashioned or unscientific or better said nonscientific. I doubt if you can show me a hospital that has a pharmacy with an inactive bottle of aromatic cascara, paregoric, or any other of the old fashioned remedies on the shelves. The pharmacy's contribution is to keep a proper, active, useful stock of drugs of known efficiency on its shelves for use of the staff in their care of the patient.

The pharmacy is also concerned to see that an effective, well-functioning, active pharmacy committee is operating in the hospital to keep its staff informed and in line in regard to the advances in pharmaceutical knowledge and practice so that they may better know how to prescribe and order the proper amounts and dosage to carry a patient through his individual requirements. To cite an example: The dose of cod liver oil is still the same in the mind of almost all physicians—so much for a child and three or four times as much for an adult. He still does not seem to think that the variation in the vitamin potency is a matter of much concern. In a study in one hospital with which I was connected a recent record showed that there was prescribed as much cod liver oil per patient of a new high-vitamin potency cod liver oil as there was previously of the older, cheaper variety even though the staff had been informed of the change in stock. The spoonful had it all over units per gram. The pharmacy made it its duty to correct this state of affairs and won its point. The patient profited.

Control of drugs in the wards is another contribution that the pharmacy can make to the care of the patient. Creating time and place economy by supplying the ward stations with nearly all of the drug supplies they need for ordinary medication for types of illness treated in the various sections of the hospital cuts down expense to both patient and hospital, loss of time to both patient and hospital, and often as much as a day or so in length of stay by the patient in the hospital. This is an important point and one which, to me, can stand much emphasis. Overstocked or understocked ward drug cabinets are a disgrace in any hospital and usually a reflection upon the hospital administration or the hospital pharmacy.

The pharmacy, by increasing its ability to manufacture many of the pharmaceutical preparations, intravenous solutions, standard and other laboratory solutions, can save expense to the hospital and patient. Many preparations of quality exceeding those of the manufacturer can be produced and at lower cost. Ointments are specific items, fresh tinctures and surgical antiseptics are others. With the cooperation of the laboratories in our hospitals, the cost of antiseptics for topical application was reduced several hundred dollars per year. The manufacture of fluids for intravenous therapy in our institution effects savings of thousands of dollars per year, all of which is passed back to the pa-

tient in a reduced cost of care or improved service. The possibilities in the manufacturing field are unlimited and make for an active, useful pharmacy point of view within the hospital.

During the past five years, the increased interest of clinicians in the therapeutic possibilities of chemotherapy has caused the prescription practice of hospitals to increase by leaps and bounds. The duties and responsibilities of the pharmacy have increased in proportion. The pharmacy, which a dozen years ago seemed to be losing ground to the drug nihilists, is once more back to its own rightful place in the hospital, contributing on an ever increasing level to the care of the hospital patient.

2. Full-time Pharmacist for Sixty-five Beds, *by A. A. Aita**

WHEN in 1937 a state law went into effect requiring all hospitals in California to dispense drugs only through a registered pharmacist, we, like many other small institutions in the state, protested. We thought that our method of handling drugs was safe and satisfactory and that we were being forced into unnecessary expense.

Sedatives, narcotics, cough mixtures, and other floor medicines had for ten years been dispensed by the head nurse. Prescriptions were filled by a local drug store. Our drug room at that time was a misnomer, as everything from groceries to light globes was stored there along with a small stock of drugs.

To conform with the new regulation we reluctantly procured the services of a local pharmacist for one hour a day. With his suggestions and help, we drew plans for a pharmacy. Our only available space was our storeroom comprising only 140 square feet of floor space. A small prescription case was constructed, a seven-foot

partition with shelves on both sides was built to the rear of this case in the center of the room, and a discarded laboratory sink with gooseneck faucets was installed. Shelves extending to the ceiling were erected on all four walls. A small cabinet with a lock and key for narcotics and sedatives was placed on the wall to the left of the work bench. By the time this work was finished, our first order of drugs had arrived. We were then set up for the dispensing of mill-run prescriptions.

Additional drugs were added from month to month according to our needs. Within six months our part-time druggist could not handle the work in the allotted hour and this was increased to an hour and a half, then two hours, three hours—and, finally, in 1941 we employed a full-time woman pharmacist, a recent graduate of a California university. The pharmacist works the six weekdays from 9 a.m. un-

* Adapted from *Mod. Hosp.* 58:104, 106, Mar. 1942.

til 6 p.m. with half an hour off for lunch. These hours and her Sunday off are more attractive than can be offered by the retail drug store.

The pharmacist's time is well utilized as the following abbreviated tabulation of a routine day will reveal.

1. Morning prescriptions and requisitions for supplies are filled.

2. Charts are checked for narcotics issued as well as for the other medications ordered during the night; charges are also made.

3. For convenience, small quantities of supplies, such as alcohol, mouth wash, and powder, are kept at the two nurses' stations. These stations are checked daily in order to keep the stock up and to make necessary charges; a busy nurse will often overlook making out a slip for these supplies.

4. Daily inspection is made of the most commonly used supplies in the surgeries, delivery room, and emergency room; this has prevented us from "running out," as the stocks are replenished as used. Our emergency room cares for many accidents and during one night will almost deplete an adequate stock placed there the day before. Antidotes for poisons are checked and made fresh or replenished at frequent intervals.

5. Other than the handling of sterilized dressings, our pharmacy acts as our central supply room. Mimeographed forms are used by each department in requisitioning supplies and such supplies are charged to these respective departments. This has markedly reduced waste and leakage.

6. Salesmen and detail men are interviewed; this takes time but is a necessary and important duty of the pharmacist, what with the rapid strides being made in the manufacture of the newer drugs. Many reliable houses give out important

reprints on the use of these newer drugs; such information is placed on file and is readily available to the members of the medical staff.

7. All incoming shipments except linens, engine room and laundry supplies are checked by the pharmacist.

8. Purchasing for the surgical and obstetrical departments is handled through the pharmacy; however, all purchase orders are checked by the superintendent.

During the night and early morning, the head nurse and floor supervisor have the key to the pharmacy so that additional supplies are available without delay. A record of what was taken is made and the charge is allocated to the department or patient by the pharmacist the next day. With a well-checked, even though small, inventory of commonly used drugs and supplies at nurses' stations, surgeries, and emergency and delivery rooms, it is not often necessary for the nurse to go in the drug room during the absence of the pharmacist. In the night and on Sundays our prescriptions are filled by a local drug store. It is a rare occasion that a prescription is filled during the night, less than two a month on an average.

Recently a small gift counter was installed, stocked principally with cosmetics. Already the turnover is far in excess of our anticipation. We are now laying the foundation for our hospital formulary; this will take time and a lot of work, but with the cooperation of the medical staff it can be achieved. Soon, too, we hope to find additional space for the purpose of manufacturing on a very limited scale. This, with the formulary, will effect a definite saving to the patient.

It takes but little imagination to see that our pharmacist delivers to us a useful and busy day and fills an import role in our hospital. What has been done here can,

it is believed, be duplicated in a hospital of this size even in a rural community such as ours. We began this venture not by choice, but by force—we now give thanks to the Pharmacy Law of 1937. We started then with a meager inventory of drugs, which has been gradually built up to \$2,600. This also includes many supplies used in practically every department. The pharmacy inventory does not include biologicals; these have been handled satisfactorily by the clinical laboratory for ten years. The cost of carpentry work, plumbing and painting was less than \$400;

equipment and library cost \$300. This is not a large outlay when stretched over a period of four years and this investment, along with that of a full-time pharmacist, has given us the assurance of safer and more adequate dispensing of drugs. The department is being operated for both service and income. True, the profit is not large, but it is something more than self-supporting.

Our pharmacy has fast become a respected member of the hospital family when only a short time ago it was a mistreated stepchild.

3. Education and Economy Are Furthered by a Hospital Formulary, by *Don E. Francke**

THE pattern of the hospital formulary will vary with the type of the hospital. In the teaching institution the formulary is usually more complete, since in this institution there is a large number of interns who have only recently finished their medical training. The teaching hospital formulary will be more valuable if it contains, in addition to a list of drugs, a short statement concerning the action and use of the various preparations.

In a hospital where the number of interns is small, the formulary is more likely to include only the list of drugs supplied by the pharmacy. In institutions where most of those who use the formulary are seasoned practitioners, obviously the need is for a different type of formulary. However it is well to keep in mind the many hundreds of available therapeutic agents with which the physician is confronted. He cannot be expected to remember essential information concerning all of these agents. A hospital formulary which supplies this information is therefore a service to the medical practitioner.

What are some of the advantages of a

hospital formulary? Essentially the hospital formulary serves two purposes: It promotes rational therapeutics, and it prevents unnecessary duplication, waste, and confusion and thus promotes economy both to the hospital and to the patient.

Let us consider some of the means by which a hospital formulary promotes rational therapeutics. In the better type formularies the drugs are classified according to the systems on which they act and include a short statement concerning the action and use of the various medicinal agents. When this information is compiled in an easily available form its effect is to promote rational therapeutics.

The tendency in medicine today is to prescribe simple therapeutic agents. Proprietary mixtures are often needlessly complex and tend to confuse the result of therapy. If a combination of drugs is desired, these may be made from single doses in the hospital stock, or prepared in the pharmacy to meet the special needs of an exceptional case.

* Adapted from *Hospitals* 19:56-57, Jan. 1945.

A hospital formulary serves as a teaching aid to the intern. It provides a well-classified arrangement of therapeutically proven medicinals which have been chosen after careful consideration by experienced members of the hospital staff.

Drugs are often offered to physicians and hospitals supposedly for clinical trial, but actually to popularize an old drug under a new name and thus to get physicians in the habit of prescribing it under this trade name. The formulary committee is in a position to study these drugs before they are offered for general use in the hospital.

Even in a small open-staff hospital the formulary serves to educate the physician concerning the relative merits of the multitude of available drugs. Although hospitals with this type of staff often require a larger choice of medicinals, it is inevitable that considerable standardization can be accomplished and much needless duplication can be obviated by the adoption of a formulary.

The second advantage of a formulary is that it promotes economy both for the hospital and for the patient. Economy is effected by a standardization of pharmacy procedure, by reducing needless duplication in stock, and by the promotion of manufacturing in the pharmacy. There is a loss to the hospital and to the patient when many brands of the same drug are prescribed.

A physician prescribes a drug under the name he remembers best. Frequently drugs continue to be prescribed under proprietary names long after the official, less expensive drugs are available. For example: Luminal in place of phenobarbital; novocain in place of procaine; nembital in place of pentobarbital.

Economy in medication does not mean the use of inferior remedies. The late Dr.

Bernard Fantus has said that the first principle in economy is to prescribe the most efficient remedy, for it is likely to be the least expensive. As a second principle of economy he suggests that, among drugs of equal efficiency, choose the least expensive one. The hospital formulary committee carries out these principles.

The amount of economy the pharmacist alone can effect is small compared to the amount of money that can be saved through the cooperation of the medical and pharmacy staffs. Physicians as a whole are willing to cooperate if the therapeutics committee is well chosen and publicizes the results of its study and research.

The adoption of a formulary is not intended to discourage or to hamper the controlled study of any drug or proprietary article. However these studies should be objectively controlled and the results submitted to the therapeutics committee. Nor is the adoption of a formulary intended to penalize the manufacturer who by real research discovers a new and efficient remedy. He is entitled to adequate monetary reward for his initiative and foresight.

His product should be properly evaluated, however, before it is adopted. The Committee on Pharmacy and Chemistry of the American Medical Association is the proper source of information on all new commercial products.

As an initial step toward the preparation of a hospital formulary the executive committee of the hospital should appoint a therapeutics committee composed of progressive members, chosen from the several divisions of the medical staff, and the chief pharmacist who should serve as the secretary of the committee. The superintendent of the hospital should also be a member of this committee.

The therapeutics committee should then invite representatives of the various departments to submit for consideration any formulas desired for use in that particular department. In those cases where proprietary or complex formulas are requested and in which there is already an equivalent official preparation, the physician making the request should present evidence of its superiority over the accepted official preparation. Unless such evidence is submitted the article should not be admitted to the formulary.

The therapeutics committee should draw up a general policy to govern the admission of articles to the formulary. Hatcher and Stainby of the New York Hospital list the following rules in governing the admission of articles to the formulary:

1. Simple official substances will be admitted when requested, unless they have become superfluous.

2. No article will be admitted, except for controlled research, before its therapeutic value has been established.

3. No article of secret composition will be admitted.

4. No article which is sold under a proprietary name will be admitted under such a name if a substance of identical composition can be obtained under a non-proprietary name.

5. No mixture of two or more active substances will be admitted unless evidence is submitted that the mixture presents therapeutic advantages over the simple substances.

6. No proprietary article will be accepted before it has been accepted by the Council on Pharmacy and Chemistry of the American Medical Association for inclusion in "New and Non-official Remedies."

7. Requests for articles not included in

the formulary of the hospital, but which are desired for use in controlled research which has been approved by the head of the department in which the investigation is to be conducted, will receive consideration by the committee.

8. It is the policy of the committee to discourage the intravenous and intramuscular injection of substances which should be administered orally.

The next step in the preparation of a hospital formulary is to classify all the drugs in the pharmacy on the basis of their similarity of action, or their use in specific diseases. This list is then gone over and evaluated; additions and deletions are made, and the revised list is submitted to the various medical services for criticism and suggestions. After the suggestions of the staff have been considered, any necessary adjustments may be made.

The resulting list of medicinal agents is then arranged according to the decision of the committee. Most formularies include a pharmacological or therapeutic arrangement of drugs, together with a complete index. This list should include the form in which the drug is available, such as: elixirs, tablets and solutions, as well as the official dose of the drug. The formulary should also include the strength of the various medicinals, as for example the weight of active ingredient per tablet or capsule as well as the percentage of active ingredient in liquid preparations.

All formularies should include a list of the ingredients as well as the proportions used in making preparations developed by the hospital staff or those peculiar to a particular institution. The need for this procedure is obvious when one considers that there is no other source of this information.

For all official preparations usually only

the official title or synonym is used. For the physician's information, however, the amount of active medicinal agent per dose or the percentage of active ingredients is included in the description. This procedure obviates the inclusion of a large number of substances which function mainly as solvents and flavoring agents.

For more detailed information the physician can always consult the official compendiums. The tendency today is to use English titles and to either discard the Latin title or to relegate it to second place. This makes the formulary much more useful to both the intern and the physician.

Formularies vary considerably in their completeness. The better ones contain a short statement concerning the action and use of the medicinal agent as well as statements concerning stability precautions in use, time and method of administration, and many other details which are of great value to the busy intern and practitioner.

Some formularies also include general hospital policy regarding admission and discharge of patients, autopsies, and so forth. Many include procedures to be followed in obtaining service from the laboratories such as the blood bank, bacteriology and blood chemistry.

Formularies also include general information concerning the drug policy of the hospital, suggestions on prescription writing, narcotic regulations, symptoms of poisoning and antidotes, and equivalents of weights and measures. All of this information is constantly used by the intern and physician.

In the anticipated postwar expansion of medical care, the need for hospitals to adopt a formulary will be even much greater than it is today. The administrator who initiates the formation of a therapeutics committee now will be in a far better position to provide the best in medicinals at the lowest cost to the greatly increased number of patients.

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CHAPTER XVIII. MEDICAL RECORDS

1. Assessing the Medical Record's Value Today, by Nellie Gorgas*

IN 1928, the Association of Record Librarians of North America was organized under the sponsorship of the American College of Surgeons "to elevate the standards of clinical records in hospitals, dispensaries, and other distinctly medical institutions."

One should read the *Manual of Hospital Standardization* of the College to understand exactly why it was they included good medical records as one of the minimum requirements for approval of a hospital. Of what value did they consider them? And to whom?

The statement shows that they considered the record of value: (1) To the patient, as evidence that his case "is being handled in a systematic and intelligent manner." It also might save much duplication of effort and facilitate promptness in his future care. (2) To the hospital, because it "indicates whether or not the efforts of its physicians, supplemented by hospital facilities, are in accordance with reasonable expectations of present day scientific medicine." (3) To the physician, because it "supplies information which he cannot remember." (4) To all three, since it provides a basis for medical research which adds to medical knowledge and, hence, to public health; and, finally (5) To the hospital and physician, as it strengthens their position in legal difficulties, particularly since it contains notes made at a time when, usually no thought of legal action was involved.

The matter of the prosecution of medical research through availability of case records for review and study and the ques-

tion of the need of the record for legal protection are, of course, of prime concern to the hospital.

Let us, therefore, look at the records themselves to see if they are inadequate, adequate, or more than adequate to provide the values which are accepted as fundamental and unchanged.

The College demands accurate and complete records. The *Manual for Medical Record Librarians* states that, to be complete, a good record must consist of "sufficient data, written in sequence of events, to justify the diagnosis and warrant the treatment and end results." Are the records which have been filed recently both complete according to this definition and accurate? Or have they become slipshod under pressure? One could probably reasonably assume that they are accurate as far as they go—but are they complete?

In the manual of the College of Surgeons sixteen headings are enumerated in the outline of the content of a complete record. Reviewing them in the light of the primary objective—the practice of reasonably scientific medicine—each seems important. Quite obviously, none can be dropped as a matter of routine for all cases. But has experience proved how much emphasis should be placed on each, which may be slighted occasionally, and which require full detail, and when? What are the really essential points? What is the nucleus of the record?

The College does not specify any one set of forms for use in recording case histories,

* Adapted from *Hospitals* 19:49-51, Jan. 1945.

but it does point out that there are many "approved forms which are sufficiently outlined to provide a complete medical record but not so completely as to detract from the individuality desired." Many hospitals have spent considerable time and energy in designing special forms for their individual use but few such forms are of general use because conditions vary widely and the immediate objectives and practices are quite localized.

One question which seems to arise again and again is that of the importance of the history and physical examination. Must it always be recorded in complete detail? Obviously something must be entered under these headings, but here one could well remember that the record must be considered complete if it has sufficient detail to justify the diagnosis and warrant the treatment.

The decision lies within each hospital, and the administrator and the medical staff record committee must make their own rulings as to how much is required beyond the minimum.

An inquiry into experiences in a few hospitals during the present emergency has netted little in the way of suggestions for reducing record work. In most places, evidently, it has been the policy to try to have the attending men keep up the records as well as possible on the old basis, but every effort to provide clerical assistance to the staff has been encouraged and has proved to be worthwhile.

At the University of Chicago the summary sheet has been cut out by decision of the staff record committee. It should be noted, however, that this is not one of the College's sixteen points which should be included. The reasoning which the University exercised would seem quite correct, namely, that in their case the sum-

mary was of value only as an exercise for the intern or resident except in the occasional case where special reviews and studies were being made or where legal or administrative questions arose, and that, therefore, the time spent on summarizing all records was not economic during the present emergency.

Where it is the interns' task to write the summary sheet, this is a chore of which they might temporarily be relieved. If a study is to be made of that record afterwards, it would probably be to the student's advantage to review the record thoroughly himself and pick out his own summary.

In some of the most highly scientific hospitals, not necessarily connected with medical schools, the summary is the task of the attending physician. After the details have been recorded carefully by his resident staff he reviews and summarizes the record himself. Record librarians point out that in so doing he often picks up diagnoses which are omitted otherwise, and he enhances the education of the resident staff members by his review of their work on the case.

If the writing of the summary sheet is omitted, something of the greatest value may be lost. For one must remember that, even in wartime, teaching continues and, in fact, teaching responsibilities must be taken even more seriously because the students must be taught more thoroughly and more rapidly to carry the increased burden the medical profession has had to assume in the crisis.

If the attending man does not write a comprehensive study of the case when it is completed, the progress notes must be very thorough if the record is to be of future value. It is now found occasionally that some of the most pertinent facts in

a case appear only in the nurses' notes—for example, the date on which casts are removed, or when certain symptoms appear or disappear.

Although it has been repeatedly said that nurses' notes need not be kept with the record when it is filed permanently—and that their preservation is not required by the College—it is quite true that many physicians feel that the most important part of the whole record is the set of nurses' notes.

Apparently, then, the values originally stated by the College still obtain and the content of the record as outlined in its manual is still the minimum to which one must hold. Apparently, also, there has fortunately been no drastic change in most hospitals with regard to their plans for records as individually compiled—theoretically, at least.

What results have been accomplished in individual hospitals in the way of re-evaluating a group of records to see if they have measured up to their objective and if they demonstrate efficiently whether the staff is practicing in accordance with reasonable expectations of present-day scientific medicine?

One such study has been made at St. Barnabas Hospital where the chairman of the obstetrics department felt that the medical staff as a whole should be informed with regard to the status of the hospital's obstetrical service, particularly the results being obtained in the face of a considerable increase in the load carried. He reviewed all the histories of the obstetrical patients cared for in 1942 when the deliveries had jumped from an average of about 750 a year to 1,129.

In order to complete his report, a detailed study of each chart was obviously necessary. This study revealed considerable

inadequacy of the records. He reported to the staff that "The labor records were kept up but certain vital information was oftentimes lacking. We believe that more accurate records could be kept if a better organized labor record could be devised."

As a result of this, he and his committee worked out a far more adequate labor record, one which allows for the collection of data for comparative reports in future years much more easily. It is planned to compile the data again in 1944 so as to see what has happened in the department in the later period in the way of improving the results obtained.

Incidentally, this study showed a waste in the amount or the timing of routine laboratory work done on the obstetrical patients. It was suggested that Wassermann tests might be reserved for patients who have had no prenatal care since all the men generally bringing patients to the hospital are doing prenatal Wassermanns at their offices. Routine urinalysis on admission might better be abandoned and only catheterized specimens used if analysis is deemed necessary.

Blood counts might better be done after delivery when the hydration effect has ceased to exert its influence and when the blood loss from delivery will have made itself apparent in the hemoglobin. The fifth day was recommended. As a result of this review of the records, the increased load on the laboratory was greatly relieved without sacrificing the quality of medicine practiced by the obstetricians. What work was done was more valuable. This was an important by-product of re-evaluating the records.

The recommendations for summarizing the obstetrical case records and revision of the labor records and nursery charts have been followed and have helped consider-

ably in teaching interns the essential points to record if the record was to be of value in proving the quality of service given.

During this period when staff physicians have been leaving their practice to enter service and have turned their patients over to other physicians temporarily, those left behind have found previous records of considerable value in bringing them up to date on the patients they are now meeting for the first time. What is their responsibility and that of the hospital for seeing that the same care is given to keeping the records up to date and complete so that the returning physicians may quickly and easily, as need arises, review what has happened to their patient while they have been away? Is the hospital doing its part and keeping up the home front if it lets the men in service down by not keeping their patient histories complete and accurate for them?

To many of the servicemen, civilian medicine will present quite a different problem—the obstetrician or pediatrician who has seen nothing but front line casualty service will have quite an adjustment to make to re-enter his old field. He will want to review records and to see what has happened within his own field while he has been away.

Study will be necessary for many, and many of these postgraduate study periods will be served in hospitals which heretofore have not offered such internships, residencies, or fellowships. The possession of good records will be a necessary part of approval for such new ventures.

Where there are good records and an interested staff, new teaching programs may be initiated. It therefore behooves hospitals interested in providing this kind of service to analyze their record procedures carefully.

2. The Unit Record System in the Light of Modern Hospital Construction, *by Adaline Hayden**

IN THE light of hospital construction, the unit record system is relatively new and each new theory that forces itself upon the attention of librarians brings up new data for their consideration and so widens the field of investigation. This discussion will deal principally with the system from an architectural or construction standpoint.

The viewpoints I shall present are probably not all new to those who have and are thinking of the unit system in the light of construction. Obviously, history must be repeated and first I would like to refresh your memory by giving you the definition of the word Unit. Unit means one, and under the unit system every record on a patient is filed under the same number. The unit system denotes author-

ity, by placing all responsibility for the records in one department, namely the medical record library.

This system is suitable for all hospitals and particularly so for the institutions having a stable population. In the beginning considerable planning and foresight are necessary. There has been much discussion as to the relative value of the system, which led to the listing of definite advantages and disadvantages.

I would like to repeat a few of these at this time. The outstanding advantages are that it (1) facilitates statistical work; (2) increases accessibility of information (every

* Adapted from *Hospitals* 16:95-96, 98, Dec. 1942.

good physician desires to review his records occasionally and when patients arrive at the hospital for treatment, the physician desires to have a record of past treatment and medication at hand); (3) favors individual research; (4) avoids duplication (many times the patient is spared the time and inconvenience as well as the expense of having a duplication of laboratory work done); (5) economizes time and personnel; and (6) saves space and material.

In view of the above mentioned facts, the record librarian must be able to locate the medical record in the least possible time. There is but one place to look when the record is filed under the unit record system.

The principal disadvantages are said to be: (1) a heavy initial outlay in old quarters; (2) difficult departmental treatment recording; (3) needless multiplication of red tape; and (4) serious loss and displacement of records.

It would take too long to attempt an analysis of each advantage and disadvantage I have listed; however, if you will test your personal knowledge of the unit system by its usefulness to you, plus the advantages I have given, I feel certain that the majority will agree that the advantages far outweigh the disadvantages.

The ideal record is one that is accurately and fully recorded, and one case properly filed is worth hundreds that cannot be located. The record room is a definite and integral part of every hospital but only in recent years has it been accepted as such. In 1925 statistics revealed that approximately 27 per cent of the plans of a group of 126 hospitals, ranging from 80 to 450 beds, showed no particular space for the medical record department.

The impression one gathered from these statistics was that the person who planned

the hospital had in mind the necessity of a special place for records and the architect fitted it in where he could find space for it, regardless of where that might be in the hospital.

Even today in a great many hospital plans the trend is toward providing little or no physical separation between the central special diet kitchen and the general kitchen; isolation units with anticipation of the treatment of tuberculosis patients, and allotment of space for physical therapy, x-ray, and pathology departments (it has been suggested that these departments be put on the ground floor to reduce outpatient department traffic in other areas); planning one operating room for every fifty beds when the census reaches a certain per cent and 50 per cent of the cases are surgical; location of the operating room on the top floor; more adequate space for essential nursing facilities; more space for keeping supplies and machines. Dozens of others could be mentioned and we all know these facts are vitally important, without a doubt, and will agree, but you will note that not one word is mentioned about the location of the medical record library or the space allotted for records. As one very well-known architect states, usually the hospital is planned and the record librarian takes what is left. It may be over the boiler room on the first floor or in some far, dark corner in the basement.

Today, more than ever before, many things are to be considered in the construction of a record department. The defense program is in high gear. There are rapidly changing conditions both as to ability to secure materials and also the cost of materials. There are some articles that are practically out of circulation and of which there will be no more for the duration. For

example, it is next to impossible to secure brass brads, metal tags, and steel files; nevertheless, some provision must be made to assemble and house our records.

The important questions of construction are:

Where should the record room be located?

What should be the size?

The record room should be in the administrative section of the hospital. This is usually on the first floor near the staff and conference rooms, as well as the medical library. If the record library is away from the administrative activities, there is a definite disadvantage. The attending physician neglects going to the department when it is not urgent. Central location is a time saver for him. The size, of course, will depend upon the size of the institution and the number of patients cared for in the hospital and in the outpatient department.

In a hospital registering approximately seventy new cases daily, with a current file room of 40 by 15 feet, the records of about five years can be carried very nicely. Records filed under the unit record system, as you are aware, are super-active and the question of storage must be given careful consideration. Many of the storage plans which have been adopted are only tentative until a better system can be outlined.

I believe that microfilming is the solution to our problem. Many hospitals have and many are planning to adopt the microfilming procedure.

No doubt you are saying to yourselves, "But how can one film records if he uses the unit system?" This has been a real problem in the past, but we feel that it is definitely solved.

First, I would suggest that you do not undertake filming until the hospital is

at least five years old. At the end of the five-year period, make a complete survey of the record file room, taking out the records of all patients who have not been seen in the past two years. Indicate on the folders that the history has been filmed and leave the folder in the permanent file. Have all records checked and in order before you start rental of the photography machine. You will save money if this is done.

If the patient returns to the hospital and his former chart has been microfilmed, do not give him a new number. Give him the same unit number he originally had, stating on the statistical sheet of the new record that the initial record has been microfilmed and record the date of filming. Films can be spliced and the additional information should be filmed yearly. By splicing the film in this manner, the unit system will not be interrupted and all records on the patient will remain filed in one file under the same number.

Filmed records are acceptable in court and making the notation on the statistical sheet, stating that the initial record has been microfilmed, is a very essential step, from a legal standpoint as well as being of value to the record department. We must be very careful to note why the film has been spliced. This point cannot be over-emphasized.

In many cases, the knowledge of the working of a system in another institution definitely affects our attitude toward it.

My conclusions are that the unit system, in connection with microfilming, would be simple in use and complete in results, as well as economical.

I earnestly urge your consideration of this system if you are considering remodeling your present hospital or constructing a new one.

3. A Broad Summary of What Is Good and Bad about Microfilmed Records, *by Edna K. Huffman**

MICROPHOTOGRAPHY, generally regarded as a new technique, boasts a distinguished lineage dating back to the early days of photography. In 1839 photography, introduced by Daguerre, was accepted, and two years later, Dancer, an English microscopist and photographer, succeeded in reproducing a printed handbill 14 inches long on a negative one-quarter of an inch long. Thus the filming of records originated.

V-mail, considered as one of the wonders of our age, had its counterpart, in a small way, during the Franco-Prussian War of 1870-71. Dagron, a French photographer, developed a plan whereby letters and dispatches were printed on large sheets and then photographically reduced to 50 x 70 mm. Twenty such thin collodion films could be encased in a quill and carried by a single carrier pigeon when previously a thin sheet of paper two or three inches square was the maximum load for a pigeon.

Upon arrival in Paris the films were projected on a screen and transcribed by copyists. Forty sets of each dispatch were made and sent each time because of the high mortality rate of the carrier pigeons due to cold, gunfire, and the falcons employed as interceptors by the Prussians.

Some of the original microscopic dispatches still exist and can be read without difficulty. While this method proved very valuable during war, the cost was too great for use during peace, and so for more than a half century the process remained undeveloped.

During the decade between 1930 and 1940 there was a marked expansion in the development and use of microphotography due to conditions and methods which decreased its cost. At this time it ceased to

be considered a photographic technique and became instead a records administration and control system. While used at first more generally by banks and insurance companies, microphotography soon attracted the attention of hospitals, ever on the alert to adapt business techniques to their own advantage, as they realized the tremendous space saving that could be accomplished by filming the old charts which were fast outgrowing the storage space generally available.

There are, of course, certain advantages and disadvantages in filming records. The advantages as they have appeared in active practice in our hospital are:

1. *Space saving.* Charts contained in one file drawer can usually be filmed on one 100-foot roll of film measuring 4 x 4 x 1 inches.

2. *Accessibility.* Films can all be stored in the medical records library and so are readily available at all times. High shelves or stacks of drawers are thus eliminated, reducing the danger of accidents.

3. *Protection.* Medical records on film cannot easily be tampered with.

4. *Elimination of misfiling.* Misfiling of a chart is impossible after a chart has been filmed.

5. *Time saving.* Films filed in the medical records department eliminate the time consumed in going to outlying storerooms for charts. Time saved is money saved.

Two definite disadvantages are:

1. Research is not as easily done from film as from the original records.

2. Film does not readily lend itself to use with the unit system of numbering.

When considering the matter of microfilming records, certain questions naturally

* Adapted from *Hospitals* 18:73-74, 76, Oct. 1944.

come up; I think it would be helpful to take up some of the important ones. The answers are based on our actual experience and investigation.

The first question generally propounded when microfilming is being considered is, "What is the legal value of the medical record on film?" In 1939 Mr. Justice Sutherland of the United States Supreme Court, in a ruling on a case in which the admissibility of microfilmed records was under discussion, handed down a statement which declared, ". . . They constitute not secondary, but primary evidence. . . ."

The second question usually is, "What would one do when a subpoena is received and it is found that the particular chart called for is on film?" The roll of film should be taken to court as it is the responsibility of the attorney desiring the record to provide the means to read it. The hospital has complied with the order of the court by producing the record.

"How long must we keep the patient's medical record intact before filming?" is generally the next inquiry. There is no specific time limit set by law for the preservation of records, but it is advisable to keep the charts in their original form during the lifetime of the statute of limitations. This length of time varies with the different states.

The length of time the medical record is kept intact will of necessity vary with different institutions. Teaching hospitals and others with a large percentage of readmissions should keep the record as a whole for at least a ten-year period if at all possible.

This is due to the fact that there are times when two records are needed for comparison if a study series is being done. If both records are on the same roll of film, this is impossible to do. If they are not on the same roll of film, they can of

course be compared if two projectors are available.

Some hospitals may prefer to keep their charts intact during the length of time they are used for study but cannot do it because of the lack of space, in which instance it seems best to keep them intact at least until the expiration of the statute of limitations.

Another question generally asked is, "Will the film last as long as the paper on which the chart is written?" The National Bureau of Standards states that the lifetime of film is that of 100 per cent rag content paper, which is approximately one hundred years. If after many years it is feared that the film is not going to last, it can be printed in positive form and re-filmed.

When a positive record is needed for use at any time, the present day projectors are made so that sensitized paper may be inserted and a positive made and developed in a few minutes. A dark room can be prepared in the record room for such developing, or it may be done in the x-ray or photographic laboratories of the hospital.

Many times the question is asked, "Is there any fire hazard with film?" The film used has a cellulose acetate base and is rated by the Underwriters' Laboratories as the equivalent of the original sheets from the standpoint of fire hazard. The film burns as quickly but not more freely than paper; and since the film occupies approximately one one-hundredth of the space occupied by the original records, the fire hazard is in reality reduced in just that proportion.

Many problems must be settled before the actual work of filming starts. It is well to make a survey of the number of readmissions, the period of time covered by such readmissions, and the amount of re-

search done in the institution, so that the exact period to be filmed may be determined. It must also be decided whether the chart as a whole is to be filmed or whether certain parts are to be excluded.

Some hospitals do not film the nurses' notes, while some institutions exclude certain types of cases such as T & A's and/or circumcisions. Such a decision must, of course, be made by the hospital administration.

The length of time needed for preparation varies with the different institutions according to the condition in which the charts have previously been kept. It must be kept in mind that those generally being filmed now are charts compiled prior to or shortly after the American College of Surgeons began its hospital standardization program and so were not given the attention which we give our charts today.

A check must be made to ascertain that there has been no misfiling and numbers must be checked. If charts are filmed out of order or under wrong numbers, the mistake is made for all time, and a chart is probably lost—never to come to light again.

In years gone by, the hospitals did not generally assemble their charts in a standard order. In such cases they should be re-assembled in a standard order at the time of filming. This will make the preparatory period longer, but it will save time when hunting information from film. Excess sheets kept for protection at the time of the hospitalization, such as clothing lists, may be discarded at this time.

It is also surprising how many blank sheets will be found in the charts that should be removed. Anything not vital to the case and which will not be needed for study should be removed at this time.

The type of fastener used in the records is a great factor in the time needed for the

preparatory work. This has been a big factor in the time element in our own institution. In the beginning we found brads used. They were very easy to remove, and the manager of our general stores was happy to get them.

Later we found a ten-year period when charts were put together at the top with at least three—and more often four—heavy duty staples. After these had been laboriously removed with a small screwdriver because a staple puller would not take them out, laboratory sheets would be found within the chart stapled with an extra two or three staples. Thus as many as twelve staples were found in many of the average sized charts.

The work of finding a record on film is expedited if the hospital number is written in large figures on a blank sheet of paper preceding each chart. This also assures the photographer that she has all the charts.

It is at this time that the age limit of the patients must be carefully checked in those hospitals excluding the nurses' notes or any other part of the chart from the film. It must not be forgotten that the entire record must be preserved in the case of minors, as the statute of limitations for bringing negligence actions may not begin until the child is twenty-one years of age.

The actual filming is a simple process after the work of preparation is completed. It has been stated many times that anyone can do the filming, whether experienced or not. While this is true, the speed with which the work is done and the type of work produced depends entirely upon the photographer.

For good work this person must be capable of keeping up an even rhythm in feeding the sheets into the machine. If at all possible, the actual work of filming should be done by one person, as familiar-

ity with the work and the machine results in the development of speed in photographing.

The machine itself is practically fool-proof so far as the photographer is concerned. The sheets are fed into the machine as fast as the photographer can work, and as they go through the mechanical counter tabulates the sheets filmed, or the "impressions" as they are called in filming parlance. The gauge is set for the thickness of the sheets to be filmed and will automatically refuse to operate if more than one sheet is started through at a time.

The operator may ascertain whether her machine is working properly by the lights. If they do not go on, the operator knows that something is amiss, as they should light when a sheet is being filmed. Even though the motor is running, the only time that film is being used is when the lights are on.

For the duration at least, this equipment can only be rented; hence it is advisable to have either all the preparatory work done before the filming begins or at least enough so that those preparing the material can keep ahead of the photographer. After the work is under way, two people should be able to prepare fast enough to keep one person busy filming.

Before the original sheets are destroyed, each film should be edited for filming defects, defects arising during the developing process, or blank areas caused by mechanical defects. If the workers doing the preparatory work are accurate, and the photographer in turn checks as she photographs, it is obviously a waste of time to check each separate page of the original record against the film.

After it has been determined that the roll is satisfactory, the box in which it is to be stored should be marked with the case number^s just as a file drawer is

marked. At this period the original sheets of the charts may be destroyed.

Hospitals many times have been disappointed when their operators have not been able to keep up with the speed records cited by the microfilming companies. This speed is generally based on work done in government offices by electrically operated feeders. The paper being filmed in these offices is generally new, while the records filmed by the hospitals are on old, brittle paper, in many instances badly frayed by use.

Also in many instances the government films punch cards, while the work done in hospitals is generally on standard size 8½ x 11 inch sheets. All of this greatly slows up the speed of the photographer, and so the speed averages cited cannot be maintained. The size of the sheets filmed also enters the picture—the larger the sheet, the fewer impressions filmed.

The primary objective of all hospitals in filming medical records is to save space, and of course, those hospitals using a unit system of numbering need to save space just as much as, or probably more than, those using a serial method of numbering because on an average their records are larger due to the inclusion of the outpatient record.

There are two methods that can be used by hospitals which use the unit system of numbering. With one method the films may be spliced and the new admission inserted with the old. This can be done in annual, five-year, or ten-year periods. Unless the splicing is done with each readmission, it is not a true unit system.

The other method uses strip film instead of rolls. Folders or envelopes are obtainable with pockets for the insertion of the strips, and they can then be filed in the folder containing the part of the record not on film, thus maintaining the unit.

Special readers or projectors are available for use with such strips or flat film, as it is also called. A number of projectors would need to be available under this system.

While after the war the cost will probably decrease, it is doubtful whether it will be practical to have a projector on each nursing station for some time to come; hence the doctors would always have to come to the record library to review the previous records on readmitted patients.

Each of these methods has its drawbacks. With the first method cited it will be necessary to splice the film frequently, and this is tedious. With the second method there is always the possibility of losing the short strips of film.

If the serial method of numbering is used, all previous records may be brought forward under the new number, thus making a unit record even though a unit

number is not used. With this method the charts on readmission are generally brought forward under the new number and so are not on film until they are no longer being used frequently.

The advantages of microfilming far outweigh the disadvantages. Modification of existing systems is necessary with filming; and as time goes on and filming becomes more universal, we may find that many of our ideas concerning medical records and research will undergo changes.

As the number of hospitals filming their records increases, it would be advantageous for hospital councils in various communities to establish a microfilming center. Such a project would assist the small hospitals which do not have sufficient records to warrant filming in their own institutions. It would also benefit the larger hospitals after their main project is completed and they wish to film annually the records for one year.

4. Why Not Discard Medical Records after Twenty-five Years? by *Fred G. Carter, M.D., and Frank C. Sutton, M.D.**

THE question, "How long should hospital medical records be stored?" has been repeated without satisfactory answer at every major hospital convention within memory. Although the consensus has been that such records should be preserved permanently, the constantly recurring and growing problem of inadequate and inaccessible storage space continues to plague medical record librarians and hospital administrators.

Those who have been confronted with the need of building additional storage space for medical records are wondering if this recurring problem is not creating a situation in which "the tail is wagging the dog." The recent introduction of the microfilming process, providing a space-saving and legally acceptable method of

preserving medical records, offers an apparently satisfactory compromise. We wish to point out, however, some of the limitations of the microfilming process and to suggest a more concrete solution to the problem.

The medical record has well recognized values to the patient, hospital, physician, in legal defense, public health, and medical research. It should be equally evident, however, that there must be a time limit beyond which these values of the medical record no longer apply in a practical sense. By observation and experience, it is possible to determine in any hospital an acceptable period of maximal usefulness of

* Adapted from *Hospitals* 20:35-37, Aug. 1946.

medical records which may be applied to govern the length of their storage.

Foremost in any consideration of this question are the legal requirements involved. Specific directions by law concerning the retention of hospital medical records are lacking. There remains, however, the need for retaining such records for a period of time sufficient to comply with existing statutes of limitations so that proper protection is provided for the patient, the hospital, and the physician against claims for damages or other litigation. It should be borne in mind in this connection that statutes of limitations apply *after* attainment of the age of majority by minors.

Beyond the period required for such protection the practical value of the old hospital medical record may properly be questioned. Generally speaking, its importance and use as a reference upon readmission of the patient decreases as it becomes older. This may be confirmed by a check of the frequency of calls for former admission records. Similarly, the value to the hospital for "medical audit" purposes is essentially limited to current records, using for comparison those of recent years.

As a basis for continuous and informal postgraduate education, the physician finds modern medical records of greatest value and rarely refers to old medical records for teaching purposes. Recorded data, particularly concerning communicable diseases, are helpful to public health officials, but are not requested beyond a limited period.

Questions are being raised as to how long medical records remain of practical value for research projects and concerning the periods of time ordinarily covered in clinical research studies involving reference to hospital medical records. Observa-

tions of the authors, verified by actual check, reveal that typical research studies conducted by members of the medical and house staffs cover periods of five, ten, fifteen, and twenty years, with studies of records five years old or less constituting the majority of all clinical research projects.

The widespread lack of any systematized hospital medical records prior to the emphasis placed upon their improvement by the American College of Surgeons in 1918 makes it unlikely that there would be much of value found beyond that date.

During the past decade the advent of sulfa drugs, blood and plasma, and antibiotics has tended to concentrate clinical research upon problems associated with their use. Under these circumstances, one feels justified in questioning the practical research value of medical records of thirty, forty, and fifty years ago.

There remains the rare need of referring to a dusty, yellowed, and brittle record for factual information, such as proof of birth or age, verification of residence for proof of citizenship, and verification of family relationship. Occasionally reference to an ancient record is necessary to determine if an appendectomy, cholecystectomy, nephrectomy, or some other operation was performed previously. Such information should, of course, be available upon properly authorized request and can be preserved without the need of storing the complete medical record as will be shown later.

Does the microfilming process answer satisfactorily the problem of how long to store medical records? From the legal and space saving aspects all requirements seem to be met acceptably. From the viewpoint of ready availability of information from the microfilmed record there is a difference of opinion—depending up-

on whether one consults the hospital administrator who is enthusiastic about this system or a member of the medical or house staff who is attempting to use it.

In hospitals where physicians and interns have been accustomed to having previous admission records delivered to the floor, substitution of a film reader in the record room too often serves actually to discourage a review of the past record because it is less convenient. As a result requests have been made for installation of film readers in the outpatient department and, in fact, on all floors.

A comparable objection from the medical staff may be noted to reviewing records for research in a film reader when physicians have become accustomed to the accessibility of original records selectively available through an index of diseases or operations.

Finally, present-day costs of microfilming and multiple film readers are such that question is being raised concerning the justification for adopting a permanent method that requires spending thousands of dollars in preserving medical records which have largely outlived their usefulness.

Many hospitals already are discarding parts of their medical records. Nurses' bedside notes frequently are removed from the record at the time of the patient's discharge or within two or three years after discharge. Similarly, x-ray films are being discarded within five to ten years. Other examples under consideration for discard are inactive clinic records and records of uncomplicated minor operations, such as tonsillectomies.

In view of the problems of permanent record storage, the expense and other limitations of the microfilming process, the questionable value of very old medical records, and the fact that many hospitals

are already discarding portions of their records, it is suggested that consideration be given to disposing of hospital medical records over twenty-five years old, retaining a simple card file of factual information from each record destroyed.

In this file such information as name, address, age, sex, dates of admission and discharge, diagnosis, and any operative procedures could be obtained and preserved with a minimum of time, filing space, and expense. In many hospitals, where the unit record system is in use, most of this information is already being obtained by means of duplicated admission slips which may be filed in the record room. Conformity with local statutes of limitations should be verified to ensure proper protection within the twenty-five-year period.

It is realized that this proposal may not meet with approval in certain medical school affiliated hospitals where more extensive research projects or other reference use may make permanent record storage seem desirable. If one were to consider, however, the serious deficiencies in information sought from old medical records, as testified to by almost every research worker, it would appear that their value is more theoretical than real. Would it not be advisable, instead of allocating considerable money to microfilming old records of dubious value, to spend the money in developing better medical records *for the future* by providing more recording equipment or more medical secretarial service to staff physicians, residents, and interns?

The traditional feeling that medical records should be preserved permanently is wearing thin. There is ample evidence to demonstrate that their value and use are negligible beyond the length of one generation. For the majority of hospitals the

practice of discarding medical records after twenty-five years would seem to offer a less expensive and more practical solution than has yet been advanced.

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PART FOUR

CHAPTER XIX. ADMITTING AND DISCHARGE

I. Admitting Practices*

POLICIES regarding admission of patients vary widely in small hospitals, according to reports from seventeen institutions of less than one hundred beds sent in for the information of *The Modern Hospital* readers.

The bookkeeper does some or all of the admitting in ten of the seventeen hospitals reporting. This job is often combined with other positions, such as secretary or x-ray and laboratory technician.

Six hospitals report that the superintendent is the individual who handles the admitting. Three hospitals delegate the work to office assistants (which may be another name for bookkeepers) and three give it to the telephone operator. Two have "clerks" and one each reported that some or all of the admitting was done by the business manager, the credit manager, office nurses, the assistant superintendent, or the social service worker.

As may be seen by totaling these figures, a number of hospitals have two or three people who regularly admit patients, depending upon the circumstances existing at the particular time.

At night, all but two of the seventeen hospitals delegate admitting to the night supervisor or night superintendent. One hospital reports that any responsible person may admit patients.

On holidays the regular office force continues to carry this responsibility in six hospitals; the supervisor in charge handles admitting in five; "someone experienced" is responsible in two; the administrator is on duty in two; and in each of the remaining hospitals a relief clerk,

a bookkeeper (who relieves the secretary), or a business manager takes charge.

Gena K. Aarsrud, superintendent of Lutheran Hospital, Bemidji, Minn. (sixty-five beds), says that "in order to ensure efficiency in handling the business of the institution, I believe that one of the office force should be on duty on Sundays. In some institutions it is customary to leave the hospital business office in charge of the nursing force. This is very unsatisfactory and I believe that more complaints from nurses, patients, and the general public are heard on this account than on any other."

Nine of the small hospitals still obtain necessary data from the patient or his relatives at the "main desk." Seven have an admitting room or space where privacy is assured, and five obtain data in the patient's room or ward. Some, as noted, use more than one plan, depending upon the circumstances.

Practice is fairly evenly divided about requiring payment in advance from all patients, six hospitals reporting that they do and six that they do not. One institution reported that advance payments are required in "most instances," while two require them for maternity patients. One hospital administrator stated that a definite and practical plan for paying the patient's bill is more important than requiring payment in advance. Two reported that they require such payment unless the patient is well known, well sponsored or is an "insurance case."

* Adapted from *Mod. Hosp.* 59:69-70, Dec. 1942.

J. L. Procope, superintendent of Flint-Goodridge Hospital of Dillard University, New Orleans (eighty-eight beds), wrote as follows: "We require full payment in advance from all patients for the total hospital bill if we can estimate it on the basis of the doctor's statement concerning the possible length of stay. We make some exceptions to this rule when we know the patient's credit standing or when some unimpeachable guarantor has agreed to be responsible for the bill. We are able to collect the money in advance because we have special flat rates that allow a reduction of from 10 to 15 per cent on the total bill for payment in advance. This practice has reduced our collection troubles and has eliminated the necessity of writing off a high proportion of bad debts."

A somewhat similar system is in vogue at Flagler Hospital, St. Augustine, Fla. (sixty-six beds), from which Dr. T. Dwight Sloan writes that "obstetric patients paying in advance are allowed a special inclusive rate, which is somewhat lower than the regular rate."

Two classes of patients are regularly required to pay in advance in a few hospitals: out-of-town patients and patients with poor credit rating or with unpaid hospital bills. One hospital says advance payments are accepted if offered; another collects from as many as possible ("but it is not usually possible"), while a third thinks that everybody should be treated alike.

When payment in advance is required, a week is the commonest period for payment (eleven hospitals). Two institutions ask for payments for the estimated length of the stay, and one requires ten-day payments from maternity patients.

Asked what instructions are given to the admitting clerks about suggesting high or low priced rooms, five hospitals reported that patients are shown the rooms

that are available and are allowed to choose freely. Three institutions let the price suggested depend on the patient's financial status. The medical staff decides this question in two hospitals, and one reported that no instructions are given. It is the practice of one hospital to show expensive rooms first and then cheaper rooms. Patients usually take the more expensive rooms. In two cases the occupancy is so high that there is usually little choice.

The widest variation in practices occurs in the matter of granting free service. At one extreme is a hospital that has no free beds. At the other, one institution allows its social worker almost unlimited discretion in allotting free service in the light of certain standards, which, however, she can modify. No two hospitals agree on this point except that the superintendent usually decides after consultation with the medical staff, the board of trustees, or the local welfare officials.

Fourteen hospitals report that patients are escorted to their rooms and introduced to the nurses either by the admitting officer or by a nurse from the floor. In one other hospital this procedure is followed except that, for some reason, patients are not introduced to student nurses.

The suggestions for improving admitting service in small hospitals centered principally about the person and the place. Three stressed the "right" type of admitting officer; two suggested a person who is prompt, courteous and tactful, and one each suggested that the admitting officer should "like people and be interested in their problems," should have a "good personality," or should "work closely with the social service department."

Four suggested private quarters in which to interrogate patients. Sister M. Alfreda, superintendent of St. Agnes Hos-

pital, Fresno, Calif. (seventy-five beds), described the place thus: "An admitting room, comfortably and cheerfully equipped, should be maintained in all hospitals. This tends to make the patient feel at ease and inspires confidence.

"The admitting clerk should be gracious. Expenses should be estimated, even when a deposit is not required, in order to have a businesslike understanding between the guarantor of the bill and the hospital. This procedure may be prefaced by the words: 'Would you care to have an estimate of the expenses?'"

A careful explanation of why rules are made is urged by Pearl R. Fisher, superintendent, Thayer Hospital, Waterville, Me. (thirty-four beds):

"Definite information, given in a personal manner, regarding hospital regulations and service should be made an un-failing part of the admission routine. This

work should not be delegated to an untrained subordinate. It calls for experience, tact, courtesy and an understanding of human nature. Bulletins or information cards, while of unquestioned value, are hardly sufficient.

"A patient will relax to hospital routine more easily if the dozen or so perplexing questions in his mind can be answered. For example, he should understand the regulations regarding visiting hours; also, he should be told that his relatives can remain in the hospital on the day of the operation, and that his newspaper will be brought to him daily.

"The average person can meet difficult situations more adequately if he understands them beforehand. A few words of encouragement to a new and bewildered patient and, perhaps equally important, to his anxious relatives will go far in dispelling the natural dread of a hospital."

2. Discharge Arrangements for Hospital Patients, by *Frances M. Money**

MUCH has been written concerning the social admission of patients, but less information is available regarding the circumstances under which patients depart from the hospital. Discharge arrangements are extremely important from the point of view of the patient's subsequent health progress, the opinion of his community concerning the hospital, and the efficient use of the institution itself. Large public hospitals probably have more reason to be concerned about the circumstances under which patients leave than do the private ones.

Several years ago we discovered at the University of Minnesota Hospitals that some patients calmly lingered in the hospital two or three days after the discharge note was written by the doctor, or became emotionally upset admitting for the first

time that they had "no place to stay," others failed to return to the clinic, while others returned having neglected to carry out medical recommendations made at the time of discharge.

This set of problems caused us to work out a practice which has been in operation long enough to make us familiar with its advantages and disadvantages. It is a complex matter to get a patient properly on his way. The doctor, the nurse, and the

* Adapted from *Hospitals* 14:103-105, Jan. 1940.

Certain changes in procedure at the University of Minnesota Hospitals have been made since the above article was written by the late Frances M. Money. At present only those patients needing after care or presenting other special problems are referred to the Social Service Dept. at the time of discharge. On the other hand, many more referrals are made to social workers earlier in the care of patients.—Lydia B. Christ, Acting Director of the Social Service Dept.

social worker must engage in prompt teamwork, while the admission office awaits results, hoping hourly for the empty bed.

OUTLINE OF PROCEDURE

1. The physician writes an outline of discharge orders in the patient's medical record, and fills out a discharge slip for the use of the head nurse indicating that the patient is ready to leave, and when he is to return, if he is to attend the outpatient department rather than visit his local doctor. Prescriptions for medication which the patient will take with him are attached to this discharge slip.

2. The nurse telephones the medical social worker that the patient is medically discharged. Next she writes the appointment as indicated by the doctor for the patient's clinic visit, if he is to return. She then awaits developments instigated by the medical social worker. Her part in the discharge procedure is not finished but she cannot continue until the social worker reports certain developments.

3. The medical social worker consults the discharge recommendations as they appear in the medical record, and reviews them with the patient supplementing any explanation which he did not grasp or remember as presented by the doctor. She then asks him his plans for getting home, emphasizing the date of his discharge. This is a crucial point. The patient may have adequate plans and apparent ability to carry them out, or he may be without a destination, without a cent for travel, or too ill to be in a private home unless there is someone there who is able to give him nursing care. Convalescence cannot be offered on our hospital wards, nor can chronic hospital care. Possibly the patient is going to be bedridden indefinitely and is not able to make plans for himself.

If the patient is fairly competent and understands the medical recommendations his doctor has made, and apparently can carry them out without assistance, and he has a home of his own or with relatives to whom he may go and has means to get there, all is well. The social worker merely telephones the responsible relative to come for the patient unless it is found that he is able to return home alone. If relatives are to take him home the social worker may have to emphasize tactfully the exact time to come for him so as not to extend convalescence of the patient in the hospital. But this type of case is relatively uncomplicated. With the above accomplished the social worker makes an entry in the medical record under the physician's discharge recommendations, stating exactly where the patient is going, when, and how. At the same time she gives the same information to the head nurse.

We will return to the nurse's role, but first we will consider the patient who is apparently without relatives, can no longer live alone, is without funds, and has a poor prognosis for recovery. The social worker is under considerable pressure to make a sound plan for this patient upon short notice. She has to take into account the following factors: the patient's attitude toward his problem and ability to participate in arrangements for his future; the wishes of relatives if he has any who are to some extent responsible; the amount of financial aid which can be counted upon from public sources; and the availability of a treatment resource such as a local doctor or nursing home in the patient's home community. It is barely possible that a sound plan cannot be worked out and all parties convinced of their responsibilities in less than two or three days. When arrangements are completed they are written into the record and the nurse told when

she may expect to have the patient ready for departure.

What further does the nurse have to do?

4. The nurse gives the patient his appointment slip for return to the outpatient department, if he is to receive subsequent medical care there, and whatever medications have been prescribed. She then has a ward attendant take him and his record to the bookkeeping office where his account is checked, and where he claims such valuables as he may have placed there for safekeeping upon admission. With these things accomplished, the patient is "discharged."

5. As soon as it is conveniently possible, and depending somewhat upon whether the patient is to receive subsequent medical care at the University outpatient department or from the local doctor who referred him to the hospital, the chief of staff sends a summary of hospital findings and treatment to the referring physician. These medical reports are sent for all patients irrespective of the rate or source of pay for hospital care.

We have found after following the above plan for a period of six years, applying it to all patients except those under private care, that there are definite advantages and disadvantages associated with it.

ADVANTAGES

There are certain favorable results which develop for the patient, the community, and the hospital itself.

The patient has an opportunity to discuss his medical recommendations with someone who knows them, after he has reflected upon what the doctor may have told him in a somewhat hurried or technical manner. If his discharge rests upon his untreatability rather than upon a favorable response to recent therapy, it may

be that he will ask the social worker questions she is unable to answer. When this is so she can summon the doctor who will talk with the patient further. Every effort is made to see that the patient has what is to him a satisfactory explanation of his medical condition and aid in making plans for further care.

The "improved" patient gains through having his recommendations checked by someone who will help him remove social obstacles to their execution, and through having clarified for him his own part in carrying out what his doctors have advised. Lastly if he is paying the per diem rate rather than receiving care at county and state expense he is enabled to leave at the earliest possible time thus conserving his funds.

The community profits by the discharge procedure because with a few exceptions patients are discharged on the day the doctor is ready to release them. This is a saving of public funds because many patients cared for in this manner are inclined to linger a day or so, especially if they do not feel very vigorous, and relatives can more conveniently come for them a day or several days later. For these patients necessary contacts are made with the county welfare boards and county nurses, so that not only does the patient receive as complete an extension of the hospital's program as is possible, but interested local agencies are sharing in the responsibility with an understanding of what is involved.

The hospital itself gains by this procedure, first by obtaining a bed without delay when a patient is discharged medically. The hospital is thus able to give greater satisfaction to the patients on the waiting list, to the local doctors on the subject of intake, and to the medical school in regard to teaching material. Again, the recommendations made by the

doctors at the time of discharge have a higher probability of being carried out than when the possibility of their execution is not looked into by someone of the hospital staff; and lastly, the patient who cannot understand or accept the initial explanation made by his doctor is discovered before he leaves, the social worker and if necessary the physician going over the ground with him again.

DISADVANTAGES

The doctors get into the habit of thinking that the medical social worker will make all plans immediately upon their decision to discharge the patient, and consequently do not refer some days in advance those patients who will need a totally different regime from the one supporting them at the time of admission. Consequently, in a few cases the patient who could otherwise be released on the day the doctor wished may have to stay a day or two longer, which after all is better than a week. A bedridden man requiring terminal care cannot be sent out at a moment's notice, if he has no home to go to and needs transportation by ambulance whatever his destination. Such cases ob-

viously present difficult social problems and should be referred early enough to ensure sound plans with responsible parties.

Immediate response to the discharge call may be detrimental to other work. In order to discharge a patient on the day he is medically ready to go, which is the day the social worker is notified, case work and clinic work fall into second position. One questions whether these other duties are not as important to be done without interruption or delay.

A third disadvantage is spending so large an amount of time on the total group of hospital patients at the time of discharge checking records, telephoning to relatives, and talking to patients, that it is not possible for the social workers to do as thorough and careful work as is desirable for those patients with more serious problems.

Without question there is a social component in the discharge procedure, but like one hundred per cent review of ward admissions it should not be attempted unless the staff is large enough to ensure satisfactory service in this area and others where greater responsibilities have already been placed.

3. Hospital Credit and Collections, *by William B. Nash**

IN ORDER to safeguard the interests and good name of the hospital, the subject of collections may be considered from two standpoints.

Obviously, the first is that of financial necessity. It is just as clearly the duty of the hospital to collect bills which are due and which can be paid as to give charity where charity is necessary. Just as important, however, is the reputation you build for the hospital by the collection methods you employ. While fair business practices must be employed in order to collect bills

due, it should always be kept in mind that the hospital is not being run in the commercial sense of paying dividends to stockholders. Its obligation is definitely to the community, and to those who contribute to its support.

There is no reason, however, why the hospital management should ever feel reluctant about taking firm steps in the collection of its bills simply because it feels that doing so might tend to mar the good

* Adapted from *Second New England Institute for Hospital Administration*, June 1942, pp. 67-70.

name of the hospital in the community. It is true that if collection methods are unjustly harsh the hospital will lose in esteem and in friends; if too lax, it will lose its reputation with sound-thinking business people.

Collection work from a financial viewpoint is, therefore, important because the difference between success and near-success is represented annually in thousands of dollars of income. In its enlightened sense it is important because you are in direct contact with human nature, with people who have two problems to contend with, namely, sickness and finances. The routine collection of the bill is only a small part of the procedure, because generally you have to employ at the outset your best skill in order to find out just what your patient can pay. He himself often doesn't know the answer to this.

ESTABLISHED REGULATIONS

Certain rules established by your trustees and understood by your staff and administrative officers are essential:

1. The patient should be asked for the first week's deposit for board and room in advance. Most hospitals do this; some trust people with the bill for a week and then if not paid, make a request.
2. Certainly it should be understood from the beginning that bills are rendered and payable weekly, and the account payable in full on discharge.
3. It is the understanding, in many hospitals, that the patient shall discharge his obligation to the hospital in full, before making payments to the doctor.
4. The hospital should have the right to remove a patient to a cheaper room if it becomes evident, on presenting the bill, that he cannot pay for the accommodation he has chosen.
5. At a definite point in the collecting

process, bills may be, and I think should be, turned over to a collection agency. This usually brings results.

6. As a final step, and with due deliberation, certain accounts should be given to an attorney, with the authority to bring suit or to obtain a judgment, if thought justified. Legal proceedings must be used with the greatest care, because laxity or undue haste might tend to discredit the good name of the hospital. False rumors are started easily and are hard to combat, especially in the smaller communities.

7. The patient who is booked for re-entry, and who has evaded settlement of previous indebtedness, should be required before admission to make a cash settlement of such indebtedness, together with at least a week's deposit to cover readmission arrangements.

However, if you have established such a set of principles and if good judgment and fairness are exercised in carrying them out, the good-will of your hospital will never be questioned. The community will respect you for fair play. The various steps should be regarded as ones which you have been obliged to take in order to keep your hospital in existence.

FUNDAMENTALS OF ALL COLLECTION WORK

The first contact with the patient is of great importance. The doctor can often be of help through his contact with all types of humanity. The proper evaluation of the patient's ability to pay combined with a clear-cut agreement with whomever is to be responsible for payment is worth almost everything else.

Evaluation is the determination, as far as you can tell, of the patient's ability to pay, taking into consideration all the circumstances with which he is faced.

- a. Has he a job?
- b. What is his salary?

- c. What are his obligations?
- d. Is he in debt?
- e. How large is his family?
- f. Is he a practical person?
- g. Does he appear to be over optimistic regarding his ability to pay?

In order to get these questions settled properly, it is most important that the patient be interviewed by the type of person who can obtain the answer in a diplomatic way. Those in your admitting office must be students of human nature. The social service department is another important means of evaluation. It can be of great service in evaluating your free or part-free cases; those with a doubtful prognosis; or those where time payments are necessary. Experience has demonstrated that by its prompt follow-up through the patient's local welfare board, the social service department can often obtain outside financial help, the possibility of which might otherwise be overlooked.

In any case, in whatever way the interviewing is done, you must arrive at what actually can be paid rather than what the patient hopes he can pay. A study in psychology comes into play here, because patients at the time of admission are apt to be optimistic and too willing in their endeavor to please you. The reason possibly may be that they think better care will be given if the plan is presented which they think will appeal to the hospital. The patient should be faced with the reality of his case. Estimates of the probable expense should be avoided and never put in writing. It should always be kept in mind that the patient is fighting two problems; sickness and expenses. He should be made to feel that the complexity of his problem is appreciated and understood by the hospital, but that he also has an obligation to

help the hospital to meet its own expenses.

Evaluation is, therefore, of prime importance. An agreement for meeting the bill comes next. The so-called responsibility slip must be properly executed in all its details. If signature to it is obtained at admission, before expenses are incurred, it becomes a legal contract and is enforceable by law. The value of a correctly framed responsibility slip is especially appreciated when a so-called third party or a relative or a friend assumes the obligation. If in doubt about its legality it would be well to submit it to an attorney.

No matter who is to pay the bills, the following are good procedures:

1. Always obtain a signature, if for nothing more than to bring before the signer just what he will be expected to do.
2. Obtain a single signature, so that you will never be placed in the compromising position of corresponding back and forth with two or more people.
3. Give a copy of the financial arrangements to the person who signs the slip.

Signatures, of course, are not always necessary in order to establish the legality of an obligation: unless arrangements are otherwise made, a patient, male or female, provided he or she is of age, is legally responsible for all bills personally rendered. The husband is legally responsible for his wife's bills; the father for those of his minor children.

The importance of the above mentioned steps cannot be emphasized too much. It is safe to state that proper evaluation with properly executed responsibility slips will go most of the way toward solving your collection problems. You will be able to follow up your accounts with greater certainty of collection, barring, of course, the unforeseen obstacles which necessitate revision of the original plan.

PROCEDURES WHILE PATIENT IS IN THE HOSPITAL

After the patient is admitted and while he remains in the hospital, it should be the responsibility of all those connected with the financial aspects of the patient to pass on to the collection department any information which will help in the collection of the account.

The collection manager or advisor must be one who can give a part of his or her time to study of the patients. If possible it is best that he, rather than the cashier, visit the floors and iron out those difficulties which can best be settled by personally talking with the patient. He should make it a point of routinely checking and approving all financial arrangements. He should scrutinize weekly all patients' accounts; consult the cashiers to see that weekly payments are being made rather than wait for the cashier to come to him. Cashiers are often excellent at figures but are not often in a position where they can give the proper time to such follow-up.

The credit manager should be furnished frequently with a list of all re-entries, well ahead of admission dates so that there will be time for the proper handling or disposal of financially troublesome cases. He should, in fact, consider himself as an auditor or other disassociated person whose viewpoint is such that he can recognize a mistake, clerical error, or misinterpretation of the hospital rules—things which would be routinely overlooked and which can be corrected while they are still fresh in the minds of all.

The follow-up of a patient who is well able to pay his bills requires the closest cooperation between the cashiers and collection department. This is the patient with a room of his own choosing, private or semi-private. Some hospitals insist on

advance payments while others do not. Unless such patients are well known to the doctor or the hospital, it would seem best that the patient be asked for the first week's deposit in advance. If this is not done on the day of admission, all names should be reported by the admitting office to the collection department at once. If the credit manager cannot find any valid reason for nonpayment of the deposit, he should obtain a financial report. In case of paying patients—those who are "comfortably situated," the hospital has every right to request a cash deposit or a reason for asking that the credit be extended backed up by proof that the patient is entitled to it. If the bill remains unpaid for over a week, the hospital's right of removal of a patient to a cheaper accommodation should be exercised.

Assuming that the patient is one of limited means or one who is apparently unable to keep to his agreement, the follow-up procedure requires a different technique. Remember at all times that his financial problem is one that has been unwillingly forced on him. It is useless to keep dunning such a patient, with the possibility of retarding his recovery. To have a frank discussion at this point will often result in your being able to get him to pay at least some nominal amount regularly each week so that he will be mindful of his obligation. The referring of the case at this point promptly to the social service department will often straighten out misunderstandings or result in readjustments which are slower to clear up after the patient has been discharged.

A word about cases covered by compensation insurance. At admission, these cases require vigilant attention. Assuming that the hospital expense is to be the patient's

personal obligation, the following steps should be taken:

1. The patient's signature to the responsibility slip should be obtained as a voucher for payment of that part of the bill which will not be underwritten by the insurance company or by his employer.

2. Written authority for such hospital expense should be obtained from his employer, together with the name of the insurance company and the rates at which payment will be made.

In accepting payment from insurance companies on such accounts, bear in mind that if you sign a release for services rendered or if this fact is so stated on the check which you receive, then you can collect the excess amount of the patient's bill only by appealing to his moral sense of responsibility. A surprising amount of money can be collected by thorough follow-up from this angle.

The establishment of the Blue Cross plans has resulted in a great impetus to the issuance of all sorts of hospitalization policies by the insurance companies. The result is that patients often tell you that their insurance company will take care of the bills. This may be true but usually only in part. It is, therefore, well to obtain at once all information the patient can give you in regard to his insurance coverage. The procedure is then as follows:

1. The insurance company or the agent should be contacted regarding the present status of the policy and the coverage rates.

2. The patient should be asked if he will make over an assignment of his hospital benefits so that you can be paid directly by the insurance company, as usually such payments are made some time after the patient has been discharged.

3. The patient or some responsible person should always sign to be responsible for any excess part of the bill not covered by

the insurance policy. Such excess can of course be collected by legal means if necessary.

PROCEDURES AFTER PATIENT'S DISCHARGE

Delinquent accounts must be followed promptly while the patient still feels his obligation to the hospital. The collection department follows up with the usual series of letters which may be either personalized or form letters. Personalized letters are of greater advantage because of the appeal which you can make to the individual, and furthermore your style can be varied from time to time to fit the individual picture. Whatever kind you use, the important point is that they be started promptly, and that they be spaced at regular intervals. After the patient is discharged, requests for revisions of the original arrangements are often presented to you. Unless previously obtained, a financial report is often of value at this point in order to help you decide whether there is any justification for such revision.

If no success comes in your collection steps, there is no recourse except to turn the account over to a collection agency or to an attorney. As far as the hospital is concerned, the account has become uncollectable and should be charged off the books at this point. The account is then turned over to an outside agency and your connection with its follow-up ceases. The hospital follow-up has appealed to the patient's sense of obligation, and the collection process is now on a much more impersonal basis but strangely enough is often effective.

While the collection agency cannot enforce payment legally, it can help in curtailing the credit of one who has asked for but abused the privilege. It would seem that curtailment of credit is the next natural step in collecting a debt. An attorney on

the other hand can force payment legally and obtain judgment if necessary. Each method has its advantage and perhaps the use of both in successive stages is the answer.

Many hospitals who employ collection agencies are adverse to employing the last step, namely, legal action. An attorney should not be looked at as someone to force a payment but as one who is upholding the principles established by your hospital. Unfortunate as it may seem, the further the patient becomes removed from his hospital experience the more drastic must be the steps of reminding him of his obligation.

The hospital exists for the benefit of many rather than a few, and the income received from those who are able to pay helps keep it in existence. We apparently get nowhere in combating trumped-up excuses for nonpayment of bills except by referring the matter to an attorney. There are the people who claim poor diet delayed their stay in the hospital, nursing care was poor, they put in a claim for an article supposedly lost, or blame the doctor for some reason and, therefore, expect allowances or refuse to pay the bill entirely.

Bear in mind that the attorney receives the account usually a long time after the patient has been discharged, and after all other possible means of collecting have been exhausted. From the nature of his profession, he has to proceed cautiously on the various legal steps he takes and is merely carrying out proceedings allowed by law for the enforcement of a claim which has been established as rightly due the hospital.

during the year a true picture of the degree of your collection success. Are your bad debts increasing or are they being reduced? A brief report of your percentage of collections should be submitted monthly to the superintendent. What is a good account receivable? Should an account remain on your balance sheet if it is steadily being reduced by time payments and if there is reason to believe that the arrangement will be met? Remember that hospital accounts receivable are different from those of any other types of business. Avoid mechanical charge-offs. The accounts should be reviewed monthly and regular charge-offs to bad debts should be made so that those left on your books will always present a true picture of the amount you expect to collect.

Another question is that of free work. Assuming that your books are set up so that you can show this, are you giving yourself credit for all that you should? Allowance should be granted at the time of evaluating the patient's ability to pay. Readjustment of accounts receivable to free may be made later only if mistakes or miscalculations in the original amount of free work are discovered. Sometimes we are forced to withhold judgment for reasons beyond our control—the unexpectedly long stay in the hospital, because recovery is slower than anticipated, necessitating further expense. Such readjustments should be made as promptly as possible, and after consultation with the social service department and with the approval of the superintendent. You are justified, however, in having a plan to take care of such borderline cases.

I would like to emphasize one fact regarding statistics: the ability to refer readily to files in which may be found records on your collecting experience on your slow or troublesome accounts is often of great

ACCOUNTING PRACTICES AND STATISTICS AS RELATED TO COLLECTIONS

The application of good accounting principles will enable you to present at all times

value in handling re-entries. Keep such financial "case histories" as permanent records, or at least as long as the need exists.

SUMMARY

It would seem best that the collection policy be kept as simple as possible. Stick to fundamentals. There are many short cuts and devices which are offered to us by collection agencies, but the danger in their use is that your collection plan loses the personality it ought to have. Avoid them or your collection policies will be-

come mechanical. Collection success is worth everything you put into it. The time to look out is when you begin to feel you have solved the problem. Hospital people as a rule don't like to face their collections. I believe they should be faced squarely and that it is often a matter of compromise or give and take. Carry the soul of your hospital into your collection work. Always keep the sick person in the back of your mind and thereby instill humane methods into one of the unpleasant problems which we all have to face.

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CHAPTER XX. FINANCIAL CONTROL

1. What Accounting Should Show the Administrator and How to Get It, *by Charles G. Roswell**

ONE sure way for an administrator to get information from any accounting department is to ask for it. This is not meant to be facetious, but so often very valuable and helpful information follows a one-way path into the records or files solely because no request was made for the material. The careful planning of a monthly report form to be submitted by the business office would bring to light many essential facts regarding hospital operations.

All requests for financial and statistical information must be tempered according to the staff set-up of any business office. The actual number of employees, the ability of the accounting executive to prepare and interpret financial and statistical information, as well as the type and extent of data recorded by this department must all be taken into consideration. Furthermore, the mechanical equipment provided for the accounting office is also a determining factor as to the amount of information this department can compile and issue. Calculators, adding machines, ledger posting and statistical machines, payroll and listing equipment, Burroughs or I.B.M. tabulating cards, peg board equipment, etc., are all potentially essential if the maximum of information is desired.

The administrative policies in no two hospitals are alike and, similarly, hospital administrators seem to have their own particular interests so far as financial and statistical information is concerned. In some instances, an administrator's chief concern seems to be the profits derived from real estate held and managed by the

hospital and income received from individual gifts and bequests. On the other hand, in some institutions monthly financial reports are prepared for the hospital executive covering in great detail the activities of every department in the hospital.

Unfortunately, the extent of financial and statistical material reviewed by some administrators is determined entirely by the individual's knowledge of the subject. This is indeed unfortunate because it is not very difficult to find a usefulness for financial and statistical statements. By not securing the maximum of information which might be supplied by a properly equipped accounting office, an administrator loses an excellent opportunity of raising pertinent questions regarding the activities within his hospital and as a result fails to exercise a considerable amount of control over the various departments.

Keeping in mind that the quality as well as the quantity of information which might be obtained from the accounting department depends entirely upon the manner in which this unit is organized, let us review some of the data that usually clears through this office, which might be of interest to a hospital director.

The term "accounting" often implies nothing more than the recording of financial information. While this undoubtedly is the primary purpose of such a department, all information or data relating to financial matters might advisedly be

* Adapted from *Second New England Institute for Hospital Administrators*, June 1942, pp. 59-66.

placed under the control and supervision of the business office.

Customary functions such as the recording of income, expenditures, and the changes relating to the assets and liabilities of the corporation are routine matters which require no specific attention. Practically all statistical information, however, bears a close relationship to financial matters and therefore should logically be assigned to the accounting office for recording. It is not to be implied that this department should be responsible for the compiling of all statistics but it is suggested that the various departments submit reports, regarding units of work performed, to the accounting department in order that such data might ultimately be used as a test check on departmental activities.

For instance, the accounting department should receive copies of reports on the patient population, although originally prepared by the admitting office or medical record department, and likewise monthly reports from all household and property departments covering information such as the number of meals served, the number of special diets prepared, the number of employees living in, the number of pounds or pieces of laundry washed, gallons of fuel oil consumed, kilowatts of electricity generated, etc.

Special service departments in turn would report on the number of operations, number of x-ray films, laboratory tests, ambulance trips and, to complete the picture, the outpatient department would report on the number of patients treated as well as the visits made to the various clinics.

The accounting department might also serve as an aid to the administrator in policing all measures taken to insure a maximum degree of internal control.

For our purpose in outlining what ac-

counting should show the administrator, we will assume that we are dealing with a well-equipped accounting department in which detailed financial information is recorded as well as statistical data relating to all departments of the hospital. We might assume further that the institution operates under a budget and that a perpetual inventory system is maintained, thus providing a means of charging each department with the actual cost of the supplies consumed.

Many administrators might question the merit of having a staff sufficiently large to supply all of this information, and such an attitude would certainly be well taken if little or no use could be made of the vast amount of material that could be accumulated. In this regard, it seems fair to state that to a great degree the actual benefits that might be derived from such data depend entirely upon the inclination of the director to utilize to the fullest extent the available material.

It is realized that accounting and statistical information, to be most useful, must be presented in a concise and practical manner. No administrator has unlimited time in which to digest page after page of financial and statistical figures. Therefore, the measure of usefulness of accounting reports depends upon the manner in which such reports are presented. Serious consideration to this factor alone not only might result in a more efficient use of the material but would undoubtedly save hours of the administrator's time in utilizing reports received from the business office.

It is suggested that after an administrator carefully considers the type and kind of information he desires from his business office, an attempt be made to provide standard or uniform forms on which this information might be tabulated. This

would enable him to find his way around reports with little or no difficulty and at the same time should facilitate the work of preparing the reports since the forms might be printed or mimeographed in advance.

With regard to prepared forms, a word of caution seems in order since there is usually great reluctance to change a form after it has once been designed. Such an attitude with regard to accounting and statistical matters might be extremely detrimental since the complex nature of hospital work, and the adding of new departmental activities, would warrant a periodic review of the information that is being prepared, in order to be certain that all essential facts are being incorporated in the monthly reports.

We have now reached the point where we might discuss accounting information that should prove essential to every hospital executive. With one exception, the following reports might be submitted on a monthly basis:

Statement of assets and liabilities (showing important current ratios)
 Statement of income and statistics
 Comparative statement of departmental expenses and sundry unit costs
 Budget report
 Statistical report
 General information
 Departmental cost report

The latter report, that is the cost report, would probably not be desired on a monthly basis since considerable time is required to prepare this statement accurately. However, it would seem advisable for every institution to prepare such a report at least once a year in order that the total cost of operating the various income-producing departments might be compared with the actual revenue derived from these units.

STATEMENT OF ASSETS AND LIABILITIES

Returning to the recommended monthly statements, we mentioned first the statement of assets and liabilities. The administrator, in reviewing this statement, should give careful attention to the status of current assets and current liabilities. For quick reference, it is suggested that on the bottom of every balance sheet the following ratios be computed in order that the hospital's current working position might be gauged at a glance:

3-1	4-1	Ratio of current assets to current liabilities (current ratio)
2-1	3-1	Ratio of liquid assets to current liabilities (acid test)
2-1	3-1	Ratio of working capital to current liabilities
		Ratio of inventory to working capital (investment of capital in supplies)

STATEMENT OF INCOME AND STATISTICS

You have before you a suggested form for reporting operating income and special service statistics which the average accounting department should find no difficulty in compiling. You will note that in presenting this statement, an attempt is made to correlate statistical information with corresponding financial data, the object being to provide the administrator with the information necessary to question any outstanding differences in average income reported by the various departments.

The opportunity to question or to raise an issue regarding any department's efforts is probably one of the most important means of control that any administrator might exercise and should prove an invaluable aid in the supervision of work performed by the many departments under his jurisdiction.

Let us imagine the same statement without the unit statistics. You would have merely a financial report showing in dol-

lars and cents the income earned during a particular month as well as for a cumulative period. This alone would hardly be sufficient to bring to light at a glance any outstanding differences in the trend of departmental income. On the other hand, by utilizing available statistics as a unit of measurement, variances in earnings can readily be observed. For instance, on your sample statement the average income from private patients per x-ray film for a three months' period was \$10.00 whereas the average income reported for the month of March was only \$5.00. The administrator could well afford to demand an explanation from both the x-ray and the accounting department supporting this substantial drop in revenue which might have been caused by failure on the part of the x-ray department to notify the business office of

certain charges to be made to the patients' accounts.

The suggested monthly report on operating income might be subject to further elaboration if desired by showing, in addition to the information noted, the average unit income for the same period of the previous year. This comparative information should further enhance the value of the statement to the administrator.

STATEMENT OF OPERATING EXPENSES

The statement of direct departmental operating expenses does not lend itself as well to the computation of unit costs for each department and therefore has been designed on a purely comparative basis. The value of this statement can be increased greatly by having a substantial break-down of the various departmental

XYZ HOSPITAL

Statement of Operating Income Month of March and three months ended March 31, 1942

Earnings from Patients	Month of March 1942				Three Months to March 31, 1942			
	Amount	Units		Average per unit	Amount	Units		Average per unit
		Description & No.				Description & No.		
BOARD								
Private	\$20,000.00	Patient days	2,000	\$10.00	\$75,000.00	Patient days	6,250	\$12.00
Semiprivate	15,000.00	Patient days	2,727	5.50	50,000.00	Patient days	10,000	5.00
Ward	25,000.00	Patient days	12,500	2.00	60,000.00	Patient days	30,000	2.00
Relatives	200.00	Guest days	40	5.00	500.00	Guest days	100	5.00
Special nurses	1,500.00	Nursing days	1,200	1.25	3,500.00	Nursing days	2,333	1.50
OPERATING ROOMS								
Private	2,000.00	Operations	100	20.00	5,000.00	Operations	200	25.00
Semiprivate	1,000.00	Operations	100	10.00	3,000.00	Operations	300	10.00
Ward	500.00	Operations	200	2.50	2,000.00	Operations	500	4.00
OPD	50.00	Operations	50	1.00	100.00	Operations	50	2.00
X-RAY								
Private	3,500.00	Films	700	5.00	10,000.00	Films	1,000	10.00
Semiprivate	2,500.00	Films	1,000	2.50	7,000.00	Films	2,000	3.50
Ward	500.00	Films	500	1.00	1,500.00	Films	1,000	1.50
OPD	750.00	Films	1,000	.75	2,000.00	Films	2,000	1.00
Private ambulatory	200.00	Films	20	10.00	500.00	Films	50	10.00
TOTAL EARNINGS FROM PATIENTS	\$95,000.00	Total patient days	17,227	\$5.51	\$262,000.00	Total patient days	46,250	\$5.65

expenses. This would prevent the administrator from possibly overlooking an unusual increase in a particular type of expenditure which may have been offset by a corresponding decrease in other expenses of the department.

For this reason, it is recommended that all departmental expenses be classified on the books of account as follows:

- Salaries and wages
- Supplies and expense
- Repairs of equipment, apparatus, and instruments, etc.
- Renewals of minor equipment

It is understood, of course, that the classifications mentioned would be subject to further analysis if the size and amount of departmental expenditures warranted.

In preparing this report, the amount of any increase or decrease in expenses for the month and period to date, as compared with the previous year, should be noted in order that the administrator might quickly review the cost trend of the various hospital departments.

While departmental unit costs cannot be shown as conveniently on this statement as on the statement of operating income, it would seem advisable that some unit of measurement be applied to the important items of hospital costs in order to provide the administrator with a quick means of gauging financial trends. For instance, the expenses for the following items or departments might be reduced to an average cost by the appropriate application of statistics.

- Raw food costs divided by the number of meals served
- Direct cost of laundry divided by the number of pounds of laundry handled
- Direct cost of the x-ray department divided by the number of x-ray films used
- Operating room cost divided by the number of operations performed

- Laboratory cost divided by the number of laboratory examinations made
- Nursing salaries divided by the number of inpatient days
- OPD cost divided by the number of OPD visits
- Operation of plant cost divided by the total number of cubic or square feet of floor area

The foregoing does not represent all of the expenditures that might be reduced to an average cost but will suffice to illustrate the recommendation made. A quick review of this information, especially if it is prepared on a comparative basis, should also provide the administrator with material needed to question the financial trend of various departmental activities.

BUDGET REPORT

A monthly budget report is a relatively simple statement for any accounting department to prepare. The usefulness and value of this report, however, depend entirely upon the care and judgment used at the time the anticipated expenditures of the different departments were estimated. While the spade work required to prepare a satisfactory budget should rest with the accounting department, the administrator and the board of directors usually have the responsibility of determining the necessary allocations required to operate each service unit. Once this task has been completed, the departmental appropriations can then be segregated by months in order that actual expenditures for any particular month as well as for the period to date might be compared with the approved budget allotment.

By redesigning the form of the operating expense statement, it would be possible to include the budget report in this schedule if it is so desired. However, to get the most use out of any budget report, it is usually advisable to keep every de-

partment head informed as to the status of actual expenditures in relation to the budget allotment. Therefore, it is suggested that a special budget report be prepared in order that copies might be sent to the various executives in the hospital.

Incidentally, when forwarding budget reports to department heads, it is suggested that when actual expenses are not in keeping with the budget allowance, the administrator append a memorandum requesting a detailed report as to the reason for this situation.

STATISTICAL REPORTS

If the suggestions made previously with regard to the reporting of special service department statistics on the monthly reports on income and expenses were adopted, there would be no special need for a statistical report unless the administrator found it desirable to have this information on a comparative basis. If such a statement were desired, it would probably include comparative information regarding patient days, hospital admissions, percentage of occupancy, average stay per patient; special service department statistics such as the number of operations, x-ray examinations, laboratory tests, electrocardiograms, ambulance trips, etc.; outpatient department statistics such as the number of individuals treated, number of visits to outpatient clinics, etc.

It might also include statistics regarding the activities in the household and property departments. For example, number of meals served, number of special diets, number of pounds of laundry, number of kilowatts of electricity generated, etc.

REPORT RE GENERAL INFORMATION

There are innumerable financial matters which, during the regular course of busi-

ness, clear through the average accounting department. A considerable amount of this financial data should be reported to the administrator each month and it is recommended that the comptroller or chief accountant be requested to compile and include this material as part of the accounting department report.

For instance, a brief analysis of transactions affecting the current cash balance might be desirable, particularly if an institution is not endowed with an overabundance of this very valuable asset.

Other information affecting the status of income such as the amount of allowances granted private, semiprivate, and ward patients and the amount of accounts written off as bad debts can well be reported as sundry information.

If a hospital operates on a perpetual inventory system, it might be advisable to include a schedule showing the cost of supplies requisitioned by each department of the hospital. This data should be of particular value if presented on a comparative basis. A perpetual inventory record would also enable the accounting office to render a report on supplies for which there is no apparent demand. This information could be used as a check upon the efficiency of the purchasing department.

The administrator should also have a detailed report on all expenditures charged against special or restricted funds as well as expenditures charged to any capital account. The accounting department might also be requested to report on labor turnover by hospital departments.

These are only a few of the many special items which would be handled by the hospital accounting department and unfortunately might possibly remain undisclosed unless a specific request is made for the information.

DEPARTMENTAL COST REPORT

Since this report involves the distribution of indirect expenses to revenue-producing departments and patient services, considerable time is required to prepare the statement properly. Unlike a commercial business, a hospital is not in a position to alter its service charges every time costs increase. But regardless of this fact, a hospital should carefully review each year the income earned from various serv-

ices as compared with the cost of operating the departments.

To make this comparison, it is of course necessary to have the accounting department prepare a cost report and it is recommended that this be done at the end of every fiscal or calendar year. Such a report would reveal both the direct and indirect expenses applicable to every department of the hospital, thus providing a better means of comparing departmental

XYZ HOSPITAL

Balance Sheet as of March 31, 1942

CURRENT ASSETS		CURRENT LIABILITIES AND	
Cash	.....	WORKING CAPITAL	
Accounts receivable—patients	.....	Salaries payable	.....
Less: Reserve for bad debts	.....	Accounts payable	.....
Due from municipalities	.....	Loans payable	.....
Investments:		Advanced payment by patients	.....
Stocks and bonds	.....	Accrued interest	.....
Mortgages	.....	<i>Total current liabilities</i>	.....
Real estate	.....	WORKING CAPITAL	
Inventory of supplies	.....	Balance, December 31, 1941	.....
Prepaid expenses	.....	Net loss, 3 months to	
<i>Total current assets</i>	.....	3-31-42	.....
		Balance, March 31, 1942	.....
		<i>Total current liabilities and</i>	
		<i>working capital</i>	.....
PERMANENT FUNDS		PRINCIPAL PERMANENT FUNDS	
Cash	.....	General endowments	.....
Investments:		Funds for designated purposes	.....
Stocks and bonds	.....	<i>Total permanent fund principal</i>	.....
Mortgages	.....	
Real estate	.....	PLANT CAPITAL	
<i>Total permanent fund</i>		Plant capital	.....
<i>investments</i>	.....	Reserve for depreciation—	
		buildings	.....
PLANT ASSETS		Reserve for depreciation—	
Land	.....	equipment	.....
Buildings	.....	Mortgages payable	.....
Equipment	.....	Building fund reserves	.....
Building and equipment funds	.....	<i>Total plant capital</i>	.....
<i>Total plant assets</i>	.....	TOTAL LIABILITIES, RESERVES AND CAPITAL	.....
TOTAL ASSETS	.....	

RATIOS

Current assets		Working capital	= Check on size of current
Current liabilities	= Current ratio	Current liabilities	liabilities
Cash + Receivables + Short term			
investments		Inventory	= Portion of working capital
Current liabilities	= "Acid test"	Working capital	invested in supplies

XYZ HOSPITAL

Statement of Operating Expenses
 Month of March and three months ended March 31, 1942

	Month of March				Three months to March 31st			
	1942	1941	Increase	Decrease	1942	1941	Increase	Decrease
PROFESSIONAL CARE GENERAL								
<i>Medical and Surgical Care</i>								
Salaries and wages								
Residents								
Interns								
Other								
Supplies and expense								
Medical and surgical								
Patients' clothing								
Repair of instruments,								
apparatus and equipment								
Renewal of instruments,								
apparatus and equipment								
TOTAL OPERATING EXPENSES								

Sundry Statistics

Total patient days
 Average cost per day
 Average nursing cost per
 patient day
 Nursing salaries per
 patient day
 Pharmacy cost per
 patient day

Dietary

Number of meals served
 Raw food cost per meal
 Dietary cost per meal

Laundry

Number lbs. laundry
 Laundry cost per pound

Maintenance of Personnel

No. employees living in
 Maintenance cost per emp.

Operation of Plant

Total cubic or sq. feet
 Plant cost per foot

Special Service Departments

Operating rooms:
 No. of operations
 Average cost per operation

X-ray department:

Number of x-ray films
 Average cost per film

Laboratory:

No. of laboratory exam.
 Average cost per exam.

earnings with the total cost of operating the department.

To illustrate just one of the many uses of this data, a schedule has been prepared showing special service department earn-

ings by patient classification reported by ten hospitals in Greater New York for the year 1941 compared with the average operating cost of these departments. Similar information could be compiled for any

FIGURES REPORTED BY TEN HOSPITALS IN NEW YORK CITY—YEAR 1941
SUNDRY DATA RE SPECIAL SERVICE DEPARTMENTS AVERAGE INCOME AND COST

	<i>Private</i>	<i>Semi-private</i>	<i>Ward</i>	<i>O.P.D.</i>	<i>Private Ambulatory</i>	<i>Total</i>
<i>Operating room:</i>						
Number of operations	2,920	10,030	16,484	520	375	30,329
Average income	\$16.16	\$11.66	\$ 4.98	\$.76	\$ 6.39	\$ 8.21
Average cost	13.19	13.19	13.19	13.19	13.19	13.19
Average profit	\$ 2.97					
Average loss		\$ 1.53	\$ 8.21	\$12.43	\$ 6.80	\$ 4.98
% of profit to cost	22.52					
% of loss to cost		11.60	62.24	94.24	51.55	37.76
<i>Delivery room:</i>						
Number of deliveries	1,174	3,404	4,320			8,898
Average income	\$19.14	\$15.83	\$ 5.97			\$11.48
Average cost	13.62	13.62	13.62			13.62
Average profit	\$ 5.52	\$ 2.21				
Average loss			\$ 7.65			\$ 2.14
% of profit to cost	40.53	16.23				
% of loss to cost			56.17			15.71
<i>X-ray:</i>						
Number of films	8,067	15,071	46,322	38,924	19,613	127,997
Average income	\$ 5.34	\$ 5.22	\$ 1.25	\$.85	\$ 2.88	\$ 2.09
Average cost	1.85	1.85	1.85	1.85	1.85	1.85
Average profit	\$ 3.49	\$ 3.37			\$ 1.03	\$.24
Average loss			\$.60	\$ 1.00		
% of profit to cost	188.65	182.16			55.68	12.97
% of loss to cost			32.43	54.05		
<i>Laboratory:</i>						
Number of examinations	44,546	98,024	311,035	91,280	12,065	556,950
Average income	\$ 1.35	\$ 1.13	\$.21	\$.11	\$.33	\$.45
Average cost	.41	.41	.41	.41	.41	.41
Average profit	\$.94	\$.72				\$.04
Average loss			\$.20	\$.30	\$.08	
% of profit to cost	229.27	175.61				9.76
% of loss to cost			48.78	73.17	19.51	

hospital and should indicate the adequacy of the hospital's charges for various services.

A carefully prepared cost report should provide the administrator with all the financial information needed to maintain a desirable balance between income and costs.

CONCLUSION

Accounting and statistical information properly presented should not only enable the administrator to review the trend of past periods but should also provide the means of plotting a sound financial course for the future. This information can also be used for the purpose of controlling and directing the activities of the many depart-

ments in the institution and to measure the efficiency of their operating results.

An administrator should obtain as much information from the accounting department as he can possibly absorb and, furthermore, such information should be reported in a way that would give him the broadest possible control over the many and varied activities carried on in his institution.

But it should be kept in mind that the volume of information that any business office staff can readily and accurately prepare for the administrator depends entirely upon the manner in which this unit is organized and to a very great extent upon the efficiency and ability of the person charged with supervisory responsibility over accounting matters.

2. Budgetary Control, *by Guy J. Clark**

A BUDGET is a statement of anticipated income and contemplated expense. Generally speaking, it falls into those two broad classifications—expense and income. Some place more emphasis on control and preparation of expense and give income secondary consideration; others place the reverse emphasis. It is not at all difficult to prepare a balanced budget if one approaches the job from a rather lackadaisical standpoint of making the budget balance by (1) underestimating the expense that you have reason to believe will be incurred, or (2) overestimating the income that past experience and good judgment would indicate. The preparation of a budget should, therefore, be an honest effort to forecast the future operation of a hospital or any other business. Income as well as expense should be given full consideration.

It is relatively a simple procedure to instruct an assistant to prepare a budget for a given period, if the instructions do not

carry any more implication than to take the previous year's income and expense and fill in the form in the proper places and call that a budget. If the responsible officer could be convinced in his own mind that the price of commodities would remain stationary, that there would be no change in salary and wage schedules or hours of work, that the volume of inpatient and outpatient service would remain approximately the same as the previous year, the development of a budget would be of very little concern and would not weigh heavily on those to whom the task is usually assigned.

Experience, however, teaches us that officers are constantly faced with changing circumstances; if such were not a fact, executive positions would become routine. If circumstances did not change it is questionable whether there would be any demand for capable and efficient hospital ad-

* Adapted from *Hospitals* 16:13-20, Sept. 1942.

ministrators and comptrollers. It can be stated without fear of contradiction that it is incumbent upon the hospital administrator, if a proper budget is to be developed, to seek information and opinions as well as the judgment of department heads such as comptroller, purchasing agent, and others in responsible positions, and request their collaboration in this particular endeavor.

There are many conditions which might affect a budget, a few of which I will outline.

1. *The financial status of the hospital at the time the budget is being prepared.* If the given institution is in a financial position where all bills are being discounted and a relatively snug surplus is available, it is reasonable to expect that that institution might easily assume an attitude of liberality in the allocation of funds for the various departments. It is also easy to understand that they might give consideration to the replacement of certain equipment when enjoying such a sound financial status. If, on the other hand, the institution has a sizable operating deficit for the preceding year and, perhaps, one which has accumulated for several years, the person assigned the duty of the preparation of the budget should most certainly attempt to determine why such deficit occurred and take the proper steps to eradicate or eliminate these leaks at the earliest possible time. If, during the period of making the budget, no consideration is given to the financial status of the hospital, it is, perhaps, a waste of time to pursue this assignment.

2. *The possible situation in the local community.* The economic condition of the country as a whole may be normal, but the local situation may be affected by several conditions. As an illustration: the particular district in which a hospital is

located might be suffering to some degree from a crop failure due to drouth, the closing of a particular manufacturing plant which would throw many persons out of employment and therefore they would be unable to pay for hospital care. Such conditions and many others that could be enumerated would affect the income of the hospital, not only from the standpoint of a reduction in hospital occupancy, but a definite decrease in cash income.

3. *The general change in the economic situation, particularly as it might affect salary schedules and commodity prices.* Inasmuch as salaries account for from 50 to 65 per cent of the total operating expense of a hospital, a sudden change in salary schedules could quickly upset a well intended budget. It is, therefore, very important that the trends in salaries, wages, and commodities be studied and weighed from every angle at the time the budget is prepared.

4. *Prospective changes in hospital bed capacity in the community and a full realization of how it might affect the occupancy of the hospital.* If the administrator or other persons responsible for the preparation of the operating budget were informed that a new hospital under construction would be in operation the following year, and such expansion of community facilities would increase the total bed capacity by say 10 per cent without an increase in demand for hospital care, such condition might very greatly affect a hospital's financial status. The effect would, perhaps, be twofold: (1) a reduction in occupancy with a corresponding reduction in income, and (2) the reduction in expenditures would not be in relation to the reduction in occupancy for the same reason that you would not be able to reduce salaries and wages to make up the loss in revenue.

5. *The general condition of business throughout the country as it might affect the income of securities.* This condition would be of particular importance to a hospital if it were dependent to a certain extent upon endowment income.

6. *Proper or improper recording of in-patient service.* This is a subject which has been given too little consideration. The hospitals of the entire country would find it to their advantage in the future if they were in a position to demonstrate by actual statistics the amount of community service rendered. In speaking of community service, it is not intended to convey the impression that that means free service only, but a proper recording of allowances as well as part-pay days. The effort to properly record community service should be in the form of a definite policy to make every effort through an intelligent and conscientious plan, to determine ability of patients to pay and properly record such service, rather than to set it up on the books as an account receivable, eventually to be charged off as a bad account.

The person assigned the obligation of the preparation of a budget should be thoroughly familiar with the operating policies in effect in that institution. It has been my observation and experience that in some instances bookkeepers or other individuals have been asked to prepare a budget and were not informed of certain changes which would affect income and expense. If a budget is to be adequate and properly prepared it should make provision for changes in policy which are under consideration by the governing board, and may be adopted by that group. Perhaps it would be well at this particular time to illustrate the point which I am attempting to make. Let it be assumed that several new members have accepted appointment to the board of trustees. These individuals

are rather influential in the community, and bring a new viewpoint and a change in policy previously in effect by the preceding board. It is decided, on the insistence of the new governing board, that the hospital will devote a greater portion of its ward beds to free and part-pay service, and adopt a more lenient policy regarding collection of accounts. If such condition did prevail, and I have known of such cases, and the person assigned the obligation of preparing the budget did not take such change in the policy into consideration, the result would be a very definite reduction in income unless new sources of revenue had been provided by the board in adopting the change in policy. Citing another illustration might be of value. A particular board of trustees has been influenced by the medical staff to purchase a considerable amount of new equipment. No provision has been made in the past for depreciation of this equipment. No board could expect an administrator to meet this situation unless provision was made for raising the funds or unless a change in policy regarding rate structure was adopted.

The administrator and his associates may devote a considerable amount of time to the preparation of the budget. If they have been conscientious in this particular task and then immediately place the finished product in the file for occasional reference, they have not only wasted their time but they have failed to make use of one of the tools of management which may spell success or failure.

There are a limited number of persons who can successfully carry on a business enterprise without a budget. I have known some few hospital administrators in this category. Those that are so fortunate as to do a splendid job without a budget are a small minority. Unless one has the ability

to closely follow the operation of each department, it certainly would not be wise to follow the practice of operating without some budget.

It is not beyond the memory of persons now closely associated with the hospital field, that during the rapidly expanding business years from 1920 to 1930 it was fashionable to have large operating deficits, as money was plentiful and some board members did not believe that a hospital was carrying out its obligation if a deficit was not incurred. Such a condition was not at all unusual as there were members of the boards of trustees who expressed a great deal of satisfaction and community pride in being able to assume the obligation of paying off the operating deficit for the given year. I think it is safe to say that the majority of those individuals would never have been in a financial position to assume such obligation had they operated their own business in the same way that they permitted the hospital to operate.

Let us assume that it has been definitely decided that a budget is a useful tool in the management of a hospital. It is further agreed that it is the desire of all concerned to control the budget as approved. If an administrator has built a sound foundation, that is, a well-thought-out and well-prepared budget, a gust of wind or a minor change in conditions will certainly not wreck it. If he has taken into his confidence those department heads upon whom he is dependent to a great extent for the expenditure and the careful and watchful supervision of the hospital funds, he is likely to obtain good results. It is generally agreed that it is part of the obligation of the department head to assist the management in the control of the budget which will permit the smooth operation of the machinery to provide community serv-

ice and meet community need. The administrator cannot delegate authority to supervise a department unless he has adequately informed such person of his obligation to carefully watch the use of supplies and the time consumed for a given service.

Just what information should the administrator expect to receive from the comptroller or the bookkeeper in order that he can control his budget? Personally, I think that he should know the budget to date for the current period; that he should have available at the earliest possible date each month the total expenditures, broken down by department. He should have the operating cost for a like period for the preceding year for comparative purposes, and where possible this information should be broken down by departmental expense. This information would provide the administrator with evidence of the trend of expenditures and would show whether departments are running over or under their budgets.

It is not feasible at this time to go into the many ramifications of what one may think, but suffice it to say that no person can exercise adequate control of income and expense unless he receives from his associates sufficient information to provide him with the knowledge required to analyze the operation. Naturally, the administrator will expect to have prepared for him a daily report sheet which will keep him fully informed of the day-to-day operation. It is obviously impossible in a large modern hospital with all of its many ramifications for the administrator to supervise every single expenditure, and he must of necessity delegate authority to his associates. If the obligation is placed on the comptroller to authorize expenditures up to a fixed limit, then the comptroller should be expected to inform the adminis-

trator when requests are received for approval of purchases which would exceed the limit granted. No administrator or board can successfully control a budget unless they are adequately informed of the needs of the hospital and are sufficiently acquainted with the departmental requirements that they can say "no" when the occasion demands.

To do an effective job of budget control, cooperation must exist among the various departments. Cooperation is an essential factor if best results are to be obtained in any endeavor. In private business the sales manager will concede that the purchasing agent has some influence on sales policy. It is often said that a commodity purchased for resale at a favorable price is half sold. An institution may have a well-qualified, excellently trained purchasing agent who purchases all merchandise and receives full value for dollars expended. If such person is hampered by an ineffective or poorly organized receiving room, which will sign for any merchandise regardless of quality or fails to make an accurate count of the merchandise received, the value of good purchasing is of no avail. If a hospital has a good purchasing agent, a good receiving clerk, but an antiquated system of distribution of supplies and a poor floor control, the gains made by the effectiveness of the purchasing agent and receiving clerk may very well be lost. An incompetent or uncooperative person in charge of disbursements of supplies, or a department head who does not recognize the responsibility of trust placed in him to make proper use of the merchandise, will play havoc with a well-prepared budget.

It is quite important in the control of a budget that the administrator make known to the department heads as well as the storeroom from which the supplies are distributed, that the amount on hand

of a given article shall not exceed a specified quantity for a certain division. If such control is not exercised through previously established standards, the requests may greatly exceed the amount needed, and result in a definite waste of certain commodities. This point can be easily illustrated. A relatively large hospital with which I was acquainted gave practically no thought to budget control. The buying policy of this hospital was bad and unbusinesslike. The superintendent permitted each department head to place his orders for fill-in supplies and small items, but on staple items the practice was to purchase twice each year. When these relatively large consignments of merchandise were received, they were forwarded to the particular department in the quantity which each floor supervisor had requested. There was absolutely no control except that delegated to the persons in charge of the departments, and there was complete lack of cooperation on their part. At one time it was my experience to check this particular practice and I found to my amazement that there was a variation of as much as 30 per cent in the use of certain articles in one ward with the same number of beds as another and in which there had been approximately the same number of patient days. This is budget control in reverse and no hospital can long endure that kind of practice. That particular hospital, due to lack of budgetary control, did for a number of years operate at a deficit which continued to pile up each year, until it became so difficult for them to secure merchandise that reorganization was necessary.

Undoubtedly, many administrators have experienced incidents in past years when it was absolutely impossible to anticipate acts of legislatures which might affect the budget. State laws affecting hours of labor and minimum wages have, on several oc-

casions, upset budgets temporarily. The legislatures in their zeal to rectify certain conditions will many times pass laws without due consideration to fixed policies in effect in hospitals and similar institutions. As such laws affect a great number of persons, the temporary upset of the budget might greatly affect the community service which the hospital could render. This is a condition for which the administrator could not be criticized.

Often the statement is made by hospital officials and board members that they do not consider it their obligation to participate in political activities. Generally speaking, the majority of people would agree with that attitude, but in many instances the statement is too broad and is interpreted to mean that the hospital authorities should not interest themselves in the activities of political subdivisions. In many states the statutes provide that some governmental authority should assume the obligation for service rendered to indigents or medically indigent patients. While it is true in many communities that the reimbursement is not adequate, it is not unusual to hear it said that "our hospital would be in a position to meet its obligations promptly if we were reimbursed adequately for the community service rendered." In such cases I have often been prone to ask, "What effort have your governing board and you and your associates made to fully acquaint the elected officials with the amount of service your hospital furnishes to persons unable to meet the expense from their own resources?" It is often very easy to be critical of our selected officials, but the great majority of people, for some unknown reason, do not take the time or are not inclined to approach them. Elected officials, at least the ones I have known over a period of years, are just ordinary individuals who are attempting to

do a good job and are willing to give you the necessary time to explain your difficulties if you have a well-prepared case and one which they will be convinced is their obligation by statute. Hospital people have been, in my judgment, negligent to a certain extent in presenting their problems to elected officials. Many illustrations could be cited where, through lack of knowledge on the part of the accounting department, admitting officers, or other employees, the hospital is not reimbursed for service even though adequate provision is made in the laws of the state. As a matter of budget control, hospital administrators and all of their associates should always attempt to be familiar with the procedures which must be followed in securing reimbursement from governmental agencies. Do not be too critical of governmental officials until such time as you have determined if the regulations governing the disbursement of governmental funds are being followed in your own institution.

How often have you heard it said by a department head, "My budget is so much and I intend to spend it for my department." Proper budget control would not permit such an attitude on the part of individuals. When a situation arises that would require the transfer of funds from one department to another, the hospital and its value to the community should be the controlling interest and not an individual department. The allocation of funds to a department is not a final assignment of money to the individual who at the time happens to be in charge of that department, but is a part of an over-all operation and should be so considered. It is not at all inconceivable that the dietary department, for instance, might have been very conscientious in the preparation of its budget but, owing to a serious drouth resulting in crop failure, food commodities

might rapidly increase in price, while staple items purchased in quantity in some other department might not be affected. If the budget for the entire institution is to be controlled, it should be understood between the administrator and the department heads that it is the prerogative of the administrator to make transfers when deemed advisable. Such transfers, however, should always be based on facts and presented to the department heads in a convincing manner.

In a previous paragraph mention has been made of the effect of economic conditions on the preparation of a budget. How do economic conditions affect the control of a budget? Let us assume that there has been in progress a gradual increase in demand for commodities as well as a gradually expanding building program. This condition could not have been foreseen, but it has suddenly reached such proportions that boom conditions have started. Such increase in demand for merchandise results in greater employment of people. As employment reaches such proportions that there is some shortage in available supply of labor, the natural result is an increase in salaries and wages. It is only natural that under such circumstances hospital employees will expect advancement in their salaries and wages, which does affect budgets, as employees in institutions expect salary advancements somewhat in accordance with that prevailing in private industry. When such conditions prevail, it becomes a budgetary problem. If such a movement is of sufficiently wide scope, it is not beyond a reasonable expectation that the administrator would give consideration to an increase in rates, and such rate schedule should be developed on a basis of the probable additional need, but with some relation to operating cost.

When people are employed, the demand for commodities increases and the law of supply and demand becomes active. Usually no outside influence is brought to bear, and prices after they have once started may advance more rapidly than wages. This condition has not been true, however, in recent years. At any rate, an advance in commodity prices, even though it is gradual, does create a budgetary problem. In some instances the problem can be met by more adequate supervision of the quantity of a given article used. During periods of increasing demands on the budget, these problems should always be discussed with the members of the staff, the department heads, and with other hospital administrators to secure their opinion and advice.

Individuals, institutions, and in fact practically every citizen has recently experienced what could be rightfully termed budget control. Due to war conditions and the demand for certain articles, particularly metal, we have been forbidden to make purchases of certain items. We have also had the rather unusual experience of seeing prices of almost all commodities regulated to the point that a fixed maximum price has been established. Individuals as well as institutions (other than agencies of the Federal Government) are experiencing outside imposed budget control in the form of rationing of supplies. Those individuals who are in the group in which wages do not increase as rapidly as living costs are, in a sense, required to practice budget control, but in the present situation, even though wages have greatly increased, many persons are not permitted to spend money as freely as they would desire. With the quantity they are permitted to use fixed by federal regulation in an all-out effort to win the war, hospitals and public alike are restricted in the use of sugar,

and many other similar restrictions will follow. This is a form of budget control. Many individuals, hospital administrators, department heads, and in fact almost everyone can and will learn a lesson from it. During 1941 a given institution consumed for all purposes four-fifths of an ounce of sugar per meal. The federal regulation rationing sugar provides that it may be permitted to secure only 50 per cent of that amount for its total consumption.

To what extent is a hardship being placed on the individual or the hospital? It goes without saying that many arguments could be presented to show the inadequacy of such an allowance. On the other hand, I very seriously question if anyone will be greatly discomforted by this action. It is a known fact that some hospitals operated in 1941 on one-half ounce of sugar per meal. Under these conditions the hospital that exercised control of the use of sugar in 1941 is at a disadvantage as compared with those who did not exercise so strict a control. Actually, however, ways will be found to reduce the requirements of sugar, partially by doing without it and to a limited extent by eliminating waste. This illustration about sugar could be applied to many scarce items. Without doubt the scarcity of certain items and the patriotic desire to conserve will result in a considerable reduction in the use of commodities in hospitals. I venture to guess that because of scarcity there will be less rubber gloves used because we will find in many instances that more sterilizations can be secured than has been the practice in the past.

We all know that at the present time certain items of equipment cannot be purchased, due to lack of metals. A requisition for a piece of equipment which needs replacing, or one which someone

thinks needs to be replaced, is received. It is impossible to buy this particular piece of equipment as those that are available have been frozen and sale is not permitted. Let us take as an illustration a typewriter which cannot be secured at the present time, except by agencies of the Federal Government. What happens? You practice what might be termed to a degree "budget control." You repair the old typewriter and for a period of time, and in some instances much longer than you expected, satisfactory service will be performed.

While repairing and continuing the use of this machine, it must be realized that eventually the day is coming when a new machine must be purchased. Confronted with this fact, the accountant, the hospital administrator, or someone in the institution should give consideration to the preparation of a policy that will protect the funds which were budgeted for that particular purpose. The policy should be established which would safeguard those funds by placing them in a special reserve fund. When the time is appropriate and permission is granted to purchase that typewriter, or any other piece of equipment on which there is a ban at the present time, payment can be made from the special reserve fund. This procedure would be an effective illustration of budget control.

Not very many of us like remote control. There are lessons, however, that we can learn from it. The average individual resents being told that he cannot do certain things and it is especially annoying to have someone tell us as individuals or as institutions that we cannot purchase a certain thing, if we have the money available. The American public, and this is true of institutions, has been taught to spend before funds are available due to credit ar-

rangements which have been in effect. We are prone to want things that we see and many things that we hear about. If you have been associated with an institution for a long period of time, I venture the guess that you have on occasions seen equipment abandoned after it had been used only a few times. In many instances, it was a passing fancy and not an essential item. To have refused to purchase such equipment with the full knowledge of its impracticability would have been good budget control. Individuals, institutions, and private business are beginning to realize the necessity of sacrifice and sacrifice can be considered to some extent as budget control. You, I, our associates, our children, and even our grandchildren, will, of necessity, become acquainted with budget control from the standpoint of sacrifice if the debt which we are now accumulating, in order to retain our way of life is ever to be paid. In one sense of the word, budget control could be termed as a control of our desires.

If the hospital administrator in the preparation of his budget has balanced it by increasing the potential income, he is then obligated to take the proper means to see that his admitting and collection employees are informed of this situation. He should attempt to immediately work out with them ways and means of increasing income. He should prepare, after conference with these associates, a well-thought-out change in the admitting policy and provide for such necessary revisions in collection methods as are indicated. Experience has taught me over a period of years that insufficient thought is given to the importance of definite written policies. It is not unusual to hear of a newly employed collection officer who starts to carry out what he believes to be his job without any written instructions. Admitting officers

and collection officers should not be placed in a position of filling such important positions without being fully acquainted with the policies in effect in the hospital. It is not unusual to have brought to your attention that anyone available can be used as an admitting officer, without the least understanding of the policies of the hospital.

Comptrollers, accountants, or bookkeepers have an important place in hospital administration. It is, however, unfair to place the obligation on any individual to control a budget unless corresponding authority is delegated which will provide the cooperation required. Your place in the control of the budget can be, in many instances, considered more important than the average bookkeeper considers it to be.

To what extent should an administrator be provided with statistical information on the quantity of commodities used, as well as the number of hours of work for a given period in a particular division? It has always seemed to me that the hospital administrator should be provided with every bit of statistical information which is useful to him and which can be applied. It is, of course, a waste of time and effort and an imposition on everyone concerned to have statistics that are valueless. Almost all operating statistics, however, are valuable, but their value is in relation to the use made of them. The accountant or bookkeeper should consider it as part of his obligation to provide accurate, clear statements for the use of his superiors.

Accountants should be able to determine what is valuable and what is of no importance. They should not, however, attempt to make this determination on the basis of how it would relieve them, but on the basis of how valuable it is to the administrator. Let us cite an illustration. If the expenditures of the dietary department exceed the budget, there should be

available to the administrator some method to determine why. In my judgment, there are three rather simple methods: (1) make comparisons of the number of meals served for two similar periods; (2) analyze the percentage of increase for those periods; and (3) figure the wage and labor cost and number of hours for the similar periods. Supposing that you find that the number of employees is the same; that the wages and length of hours have been stationary; that the number of meals have been approximately the same. After securing this information and knowing that there is an increase in expenditure, what is your next step? The probabilities are that there is a leak some place in the food supply. Either there has been an increase in the amount of waste or there is a loss due to spoilage or theft. If proper statistics are not kept such comparisons could not be made. Let us take for an illustration one incident. A hospital storekeeper had made an arrangement with a vendor for the delivery of so many eggs each week. The top layers of the egg crates were always filled, but instead of receiving thirty dozen eggs, he only received eighteen dozen. This was a clever storekeeper and the practice which he was following convinced him that it could not be found out by the authorities. As a matter of fact, it worked so well that, as usual in cases of this kind, other similar practices followed, step by step, with the eventual result that the raw food cost reflected his dishonesty and he was eventually trapped. If that hospital had not kept records which would be compared with a hospital in the same community, it would have been most difficult for this clever individual to be caught.

It should be the assumed obligation of accountants and bookkeepers to urge their administrators to adopt standards of ac-

counting which would make it possible for their superior officer to make comparisons with other hospitals. While it may appear to be more work for the accountant to have an elaborate but essential bookkeeping method, it will pay dividends. It so happens that I am associated with a group of hospitals in the city in which a Hospital Cost Sheet has been prepared monthly over a period of years. There are many advantages which the average hospital administrator can secure from such comparable information. Yes, I know the answer in some cases is that the figures are not always comparable. That statement can be readily agreed to, but they are sufficiently informative that questions will be raised as to why a condition prevails in one hospital as compared with another. It is, therefore, valuable to provide information which will create an interest on the part of those administrators to delve into these figures to determine if their hospitals differ, or if some changes could be made which would be of value to them from an operating standpoint. Comparisons of departmental costs are valuable for a hospital administrator as he can discuss these matters of total cost of operation of a given department with his associates when he has such figures available from other similar institutions.

Budget control should not be exercised to the point that it will result in the performance of a low standard of hospital care. If the governing board directs that such policy should be in effect then there is nothing that the administrator can do but follow their directions, or point out to them where they are not performing the proper type of community service. If the volume of free, allowance, or part-pay care is the outstanding factor contributing to the deficit, then there are but three

ways open to the management to correct this condition. One would be to establish a policy of limiting intake of free and part-pay patients to that for which the funds are available. The second would be to prevail upon the governmental authorities to accept their obligation to pay for such service as is provided for by statute. The third would be to increase rates to those patients who are in a financial position to pay full cost of service, or in some instances more than cost, and thus eliminate any loss from this classification of patients, and perhaps show a slight profit. I wish, however, to state that income from paying patients should not be the guiding factor in providing income to make up the loss for free service, and reiterate that rates should always be developed with some relation to per capita per diem cost.

There are definite limitations to the elasticity of a dollar. You can and should eliminate waste of commodities as well as of employees' time. Every effort should be made to effectively secure full value

for every dollar expended. Almost all voluntary hospitals are in a position of trust and in a great many instances the buildings have been provided by the public and funds are given to provide certain services to those unable to pay for their own care.

You should control inventory and limit service to essentials. Service, however, should not be limited to the extent that it can ever be said that voluntary hospitals would deny service to those who are in immediate need of hospital care. Under no circumstances should budget control interfere with voluntary hospitals accepting for emergency service any emergency cases, or at least making arrangements for service to be provided at some other hospital.

A summary of the preceding statements can be given in but few words. Budgetary control can be defined to mean the application of sound business practices in a well-controlled organization, with well-thought-out policies, supplemented by an accounting system that will provide the necessary financial and service records.

3. Government View of Hospital Costs; Policies Pertaining to the Purchase of Hospital Care under State Maternal and Child Health and Crippled Children's Programs, by *A. L. Van Horn, M.D., and Edwin F. Daily, M.D.**

UNDER the provisions of Title V of the Federal Social Security Act, the Children's Bureau, U. S. Department of Labor, has since 1936 been charged with the responsibility for administration of that portion of the act covering maternal and child health and crippled children's services. At the present time these services are being provided in each of the forty-eight states, Alaska, Hawaii, District of Columbia, and Puerto Rico.

In the program of services for crippled children, a considerable part of the activities and of the expenditure of funds is

* Adapted from *Hospitals* 17:53-57, Aug. 1943.

This article covers an early stage in the development of current policies between government agencies and voluntary hospitals for purchasing care on a cost basis. The fundamental philosophies are the same as in 1943 but certain changes have been made in procedures. In April 1944 the inclusive per diem cost was considered to be reimbursable cost as computed from the over-all average per diem cost for accommodations in rooms of two or more beds. This procedure was again revised as of April 1, 1947, to consider the average per diem cost for all services and all accommodations in a hospital, and to give recognition of the expense for provision for depreciation in calculating the reimbursable cost. Purchasing hospital care at rates not in excess of a hospital's reimbursable cost also has come to be the policy of the Veterans Administration and the Office of Vocational Rehabilitation.—E.F.D.

concerned directly with provisions for hospital care. Some idea of the volume of this phase of the state programs may be gained from the reports of activities for a period of one year. These reports show that under the state plans approved by the chief of the Children's Bureau (these do not necessarily include all services within a state) over 36,000 crippled children are given 1,375,000 days' care annually in about 600 hospitals, and that over \$3,000,000 is expended each year by state agencies in the purchase of hospital care from these hospitals.

A recent summary of the hospitals used under the crippled children's program indicated that 78 per cent were voluntary hospitals, 15 per cent were government owned (state, county or municipal), 6 per cent were proprietary hospitals, and the remaining 1 per cent were not clearly defined as to ownership.

Among the health needs emerging from the contingencies of war are provisions for maternity care, including both medical and hospital care, for the wives of enlisted men in the armed forces and for medical and hospital care of their infants during the first year of life. Such provisions were made in a deficiency appropriation bill passed by Congress on March 18, 1943, authorizing an appropriation of \$1,200,000 to cover these services during the three months' period ending June 30, 1943. Since then an additional appropriation of \$4,400,000 has been made to continue these services into the fiscal year 1944. Responsibilities for the administration of this program at the federal level rests with the Children's Bureau and it is being closely integrated with the existing maternal and child health programs now conducted by all state health departments. At least one-half of the funds being expended under this program are for the purchase of hospi-

tal care and the number of hospitals whose facilities will be used will exceed by several thousand the number under the crippled children's program. Even prior to the inauguration of the emergency maternity and infant care services a number of state health departments were developing medical care programs for mothers and children and were including provisions for hospital care.

It is apparent, therefore, that the Children's Bureau and the state agencies administering maternal and child health services and services for crippled children have been involved in the purchase of hospital care from public funds for the past seven years and that under the Emergency Maternity and Infant Care program there is now developing a rapid expansion in the purchase of hospital care by state health agencies which will be of interest and concern to the vast majority of hospitals both large and small throughout the entire country.

As early as 1936 the Children's Bureau brought to the attention of its Advisory Committee on Services for Crippled Children the need for enunciating a general policy pertaining to the purchase of hospital care for crippled children from public funds. At that time the committee made the following recommendation:

"The official state agencies should endeavor to obtain from each hospital a flat rate that includes all the necessary services. This rate should be based on the average cost of ward care of crippled children, both acute and chronic cases."

Accordingly, it was apparent that the advisory committee believed that the rate should be based on the cost for providing hospital care, that this cost should be computed for ward care, and that the rate should be all-inclusive without extra charges.

The experience of state agencies in carrying out such a policy has been anything but uniform but has been extremely valuable in pointing up the problems which were frequently encountered. In some instances it was known that state agencies bargained with hospitals for rates which were obviously below cost and the differences had to be borne by the hospitals. In other instances we were informed that even when state agencies agreed to pay rates based on the ward cost per patient day the hospitals were reluctant to furnish a statement of operating cost, and that when such statements were submitted by several hospitals in the same community they showed such a lack of uniformity in methods of computing cost that the state agency did not feel justified in accepting the cost statements as a basis for establishing rates to be paid for hospital care. Perhaps the most frequent objection raised by hospital administrators was the use of an all-inclusive rate, although the state agencies repeatedly pointed out that they were willing to have all hospital services included in the computation of ward cost per patient day which would cover charges previously made for such extra items as operating room, anesthetist, anesthesia, laboratory, x-ray, casts, physiotherapy, and a variety of other services.

Considerable light was thrown on this problem of relations between public authorities and hospitals in the expenditure of tax funds for hospital care when the joint committee of the American Hospital Association and the American Public Welfare Association published its report "Hospital Care for the Needy" in the August 1938 issue of *Hospitals* and a subsequent report in the January 1939 issue of *Hospitals*. Many of the principles recommended in the report of this joint committee have served as a valuable guide

to the Children's Bureau in establishing its policies on the purchase of hospital care under crippled children's or maternal and child health programs.

Recognizing an urgent need for establishing a more clear-cut policy on the purchase of hospital care from public funds, the Children's Bureau in 1942 called in an advisory group of hospital administrators and consultants to consider with the Children's Bureau the desirable principles and policies which should be followed. As a result of this preliminary conference a tentative statement was drawn up and was submitted to a number of state agencies for comment and criticism. This statement was then revised and submitted to all state agencies administering maternal and child health or crippled children's services one year in advance of the effective date of the policies, July 1, 1943. Following receipt of numerous helpful suggestions and criticisms, the statement of policy was again revised on March 15, 1943.

The Children's Bureau recognizes that this is but an initial approach by a federal agency to the problem of purchase of hospital care from public funds and is convinced that even the present policies after considerable refinement will need further revision in the light of experience gained in carrying out the policy as now stated. The Children's Bureau is willing to consider any and all suggestions made by public authorities, hospital administrators, and others for further revisions in the present policies which will place them on a more equitable basis from the standpoint of both hospitals and the public agencies.

A summary of the policies as given in the March 15, 1943, memorandum from the chief of the Children's Bureau to state agencies administering crippled children services or maternal and child health

services and which became effective in all states as of July 1, 1943, is as follows: "The Children's Bureau recommends as a desirable policy that state agencies purchase hospital care at the ward cost per patient day calculated in accordance with the method specified in this memorandum (unless the per diem rates have been established by law)."

Under this policy state agencies have been requesting certified statements of operating expense of the hospitals from which care is to be purchased during the year. These statements are to include the calculation of ward cost per patient day for the hospitals' most recent accounting year and in accordance with the method outlined in the memorandum.

The basis specified in the memorandum follows closely the method of computing operating expense officially adopted by the American Hospital Association. It is generally recognized by hospital administrators that no system of hospital accounting yet devised has failed to meet criticisms and objections. However, it appears that the system adopted by the American Hospital Association is the simplest and most practical for use at the present time. Those hospitals using more elaborate systems should encounter no difficulty in transferring the appropriate items to the statement of operating expense as recommended by the American Hospital Association:

"Hospital care purchased with funds from maternal and child health and crippled children's services under plans approved by the chief of Children's Bureau shall be at a rate *not to exceed* the ward cost per patient day calculated by each hospital on the basis specified in this memorandum."

(In several states, laws have been passed governing the rates which may be paid for

hospital care under these programs. Rates are also established for certain governmental hospitals such as the Indian hospitals where the rates are established by the Federal Board of Hospitalization. The same is true in certain state, county, or municipal hospitals.)

For the purpose of computing the cost of ward care it has been estimated that the cost of ward care approximates 85 per cent of the cost per patient day for all types of inpatient service (private room service, semiprivate room service, and ward service). It is recognized that these proportions would not apply for all hospitals since they are influenced by the proportion of available beds in wards and semi-private or private rooms; the proportionate occupancy of ward beds and those in semiprivate or private accommodations; and actual difference in the amount or quality of services or supplies used in the hospital care of ward patients and of those served in semiprivate or private accommodations. Therefore, if it is found by some hospitals that the cost of ward care per patient day is in excess of 85 per cent of the cost for all types of inpatient service per patient day, a statement may be submitted by the hospital to the state agency showing in detail the allocation of expenses to the various types of service. It is obvious that in hospitals where only ward care is provided the per patient day cost represents ward cost per patient day and the 85 per cent would not apply. Likewise in hospitals where only private room service is provided, as is true in many small rural hospitals, there would be no 15 per cent reduction of the per patient day cost to arrive at a per diem ward cost.

These ward costs per patient day are to be inclusive of all operating costs¹ for

¹ Capital expenditures such as purchase of land, building and permanent improvements are, of course, not included in operating expenses.

inpatient hospital care, including operating room, drugs, casts, laboratory, x-rays, anesthesia, physical therapy and other services rendered by individuals who receive salaries, fees or commissions from the hospital for such services.

In connection with the footnote, it should be pointed out that under the policies recommended by the Children's Bureau a 10 per cent allowance is added to the calculated cost of inpatient service per patient day to cover all expenses, such as replacement of equipment, depreciation of buildings, rent and interest, not covered by the items listed for inclusion in the statement of operating expense.

In instances where the roentgenologist, clinical pathologist, and anesthetist receive no salaries, fees, or commissions from the hospital, the cost of their services would not be included in computing the hospital operating expense and they would be paid separately by the state agency for services authorized. In the majority of instances, however, these departments are an integral part of the hospital service, the cost of maintaining them is included in the statement of operating expense, and is therefore reflected in the all-inclusive per diem cost rates.

In small hospitals having no drug room or pharmacy the annual costs for purchase of drugs may be included in the statement of operating expense or drugs may be considered as a separate charge made by the druggist to the state agency and excluded from the statement of operating expense.

Extra charges may be made only for appliances and for a very few infrequent and unusually expensive items, such as the purchase of blood for transfusion.

This policy is in keeping with the general principle of all-inclusive rates. However, it is recognized that occasionally ex-

pensive sera and other biologicals are required for the treatment of certain patients. The hospital should not be expected to bear such costs.

The statement of operating expenses should exclude all expenditures for educational and religious purposes, research, the value of donated or volunteer services, outpatient services, replacement of equipment, depreciation of buildings or equipment, rent, interest and other non-hospital operating expenses, such as gift shops, lunch counters and so forth.

By expenditures for educational purposes is meant direct charges in connection with medical or nursing education—for example, the salary of a full-time instructor in nursing education, the cost of books, etc. Maintenance of student nurses may be included in the statement of operating cost.

Exclusion of donated or volunteer services from the statement of operating expenses is being made because such services do not obligate the hospital for any financial reimbursement and therefore do not represent a direct cost for providing hospital care. Maintenance for members of various religious orders who serve in many hospitals on a volunteer basis may be included in the operating expense. However, expenditures for their personal welfare, such as habits, travel expenses to mother house or retreat, dental care, etc., are not to be included as a hospital operating expense.

Expenditures for outpatient service are to be excluded inasmuch as the ward cost per patient day should be computed only on the basis of costs for inpatient service. The cost of all services rendered individuals not occupying a regular hospital bed or bassinets should be listed under outpatient operating expenses. Where difficulties are encountered in segregating such

costs it is recommended that the cost of outpatient services be estimated on the basis of \$1.50 per clinic visit.

With reference to the other items listed for exclusion from the statement of operating expenses, attention is again called to the additional allowance of 10 per cent of the cost of inpatient service per patient day to cover such items as replacement of equipment, depreciation of buildings, rent, and interest.

Payments per patient day for ward care after 14 days' hospitalization of any individual shall not exceed 75 per cent of the calculated ward cost per patient day unless the average length of stay for the hospital is longer than 14 days, in which case the 25 per cent reduction in rate should apply for the period of hospitalization of an individual beyond the average length of stay for the hospital. In such cases these hospitals should furnish as a part of their statement the calculation of the average length of stay.

It is generally recognized that the cost of providing hospital care to the average patient is greatest during the first few days of hospitalization and least during the period of prolonged convalescence. Experience has shown that the average duration of hospital stay for a crippled child is about 34 days, whereas the average length of stay for all patients in a general hospital is only about 10 days. Calculations of ward cost per patient day based on an average stay of 10 days and covering the most costly period of hospitalization would not seem to apply during periods of prolonged convalescence, when it is known that the actual cost for providing care is less. In view of the average length of stay being 10 days it seemed reasonable to designate 14 days as the period beyond which a "convalescent" rate would apply.

Since the inauguration of the Emergency Maternity and Infant Care program the Children's Bureau recognizes the fact that many patients are being authorized for admission to hospitals who will remain less than 10 days, in contrast to the longer period of hospitalization for crippled children. As soon as sufficient experience has been gained, this portion of the policy will be revised to provide for more equitable reimbursement for the hospital care of patients hospitalized less than 10 days. In the meantime cooperation will be greatly appreciated in carrying forward the policy in effect at present.

In many states there will be some hospitals used under the Emergency Maternity and Infant Care program where the number of patients authorized for hospital care by the state agency will be so few that less than \$500 will be paid the hospital during the year for such services. In these instances no statement of operating costs will be requested. Such hospitals may submit statements of operating expenses and calculations of ward costs per patient day as described above or may accept payments from these funds on the basis of a uniform inclusive ward rate established by the state agency for such hospitals. However, in the case of hospitals which receive \$500 or more for hospital care rendered to patients authorized by state agencies under the crippled children or maternal and child health programs, such a hospital is to provide the state agency with a statement of its operating expenses and calculation of ward costs per patient day for its most recent accounting year. This statement is to be certified by a competent public accountant who is not an employee of the hospital. The statement of operating expenses from hospitals operated by the city, county, state, or federal governments need not be certified by a public accountant if certified

by the chief executive officer of the hospital. Also where hospital accounts are audited and certified by accountants employed by state agencies authorized by state law or regulation to perform these functions such certification will be acceptable.

If any hospital is unable or unwilling to have its statement of operating cost properly certified as described above, the Children's Bureau has recommended to state agencies that such hospitals be paid at the rate shown in the calculated ward cost per patient day, provided such rate is not in excess of \$4.25. Where such costs are in excess of \$4.25, the all-inclusive \$4.25 rate would apply unless the hospital wished to furnish a properly certified statement of operating cost.

In certain instances it is expected that the calculated ward cost per patient day will be excessive as compared with ward costs per patient day for services of comparable quality in other hospitals in the state. In such cases we believe it is sound public policy for the state agency to establish a maximum ward rate to be paid under the programs. Such a ceiling placed on rates should be sufficiently high to be consistent with costs for providing a satisfac-

tory quality of hospital care in all sections of the state, both urban and rural.

Since the development of these policies by the Children's Bureau in conference with its hospital advisory group, an expert in the field of hospital cost accounting has been employed by the Children's Bureau on a part-time basis to assist in the review of statements of operating cost, to serve in an advisory and consultative capacity to members of the Children's Bureau staff who are working with state agencies and hospital administrators on the completion of cost statements, and also to confer directly with state agencies and hospital administrators on any special problems which may arise in connection with hospital cost accounting procedures in relation to the policies of the Children's Bureau.

The Children's Bureau appreciates the fine spirit of cooperation which has been shown in all parts of the country by hospital administrators and representatives of state hospital associations. It is only through such cooperative action that progress can be made in evolving a sound, effective and equitable policy relating to the purchase of hospital care from public tax funds.

4. Base Rates on Costs for Satisfactory Relationship with Federal Agencies, by *Fred G. Carter, M.D.**

THROUGHOUT the years there have been much argument and many differences of opinion on the question of payments to hospitals on the part of the Federal Government for services rendered to patients whose care the government accepts as its responsibility. In the last two years this whole question has assumed headline proportions in hospital relationships with the Federal Government by reason of the fact that the Children's Bureau of the Depart-

ment of Labor has seen fit to inaugurate a policy of paying hospitals for the care of certain dependents of servicemen and for the care of crippled children on a cost basis. A review of the situation may be helpful.

A survey of the federal agencies reveals that approximately fourteen have found need for the services of civilian hospitals

* Adapted from *Hospitals* 19:41-43, Jan. 1945.

in the past, and each has followed its own method of contracting for such services.

It should be obvious that we are justified in attempting to bring some degree of uniformity into our dealings with both federal and local governments. Success in dealing with the federal agencies on this question should lead eventually to uniformity on the state and local levels. Present methods of payment needlessly complicate the accounting procedure because of the many types of contracts in force. Such complications tend to increase costs and in general lead to much confusion. Furthermore, any system of reimbursement that pays the hospital less than its actual cost is indefensible from any angle.

Hospitals have traditionally set their ward rates at figures which in many instances represent less than actual cost, thus distributing charity to those in need without embarrassment to them. Such ward rates usually have been considered established rates and have been available to the general public in many instances.

It is doubtful, however, if such local charity was ever intended for national distribution. The various governmental agencies have taken advantage of this situation in the past and have insisted that they can find no justification for payments to hospitals that are in excess of established rates regardless of cost.

The hospitals—rather than government—are responsible for this situation since they have not made cost the major consideration in setting their rates. One of the main reasons why they have not done this is because they have not known what their costs were, due to the fact that their accounting systems have been inadequate. If we hope to make progress with the various agencies of government in securing adequate payment for our services, we must have adequate accounting, and in the in-

terests of efficiency our accounting must be as nearly uniform among hospitals as it is possible to make it.

Federal hospitals fall into two groups with respect to the manner in which they may deal with payments to hospitals. On the one hand, such units as the Rehabilitation Service and the Children's Bureau operate through grants-in-aid to the various states and their dealings are with state agencies which in turn contract with the hospitals of the respective states.

On the other hand, a number of federal bureaus, including the United States Employees' Compensation Commission, the Veterans Bureau, the United States Public Health Service, and the Office of Civilian Defense contract directly with each hospital under fairly rigid statutory control. They are allowed to pay no more than the going rates for the general public as the established rates of the hospitals with which they deal.

It is quite evident that legal difficulties stand in the way of uniform methods in the federal purchase of hospital care on the reimbursable cost basis inaugurated by the Children's Bureau and adopted by the Physical Rehabilitation Section of the United States Office of Vocational Rehabilitation. The implications of this situation are obvious. Hospitals must know their costs and must base their rates on costs in their dealings with the public as well as with federal bureaus. Perhaps our efforts will have to focus on the hospitals themselves rather than on federal bureaus.

The Children's Bureau program, which we have come to regard as a possible pattern for all federal agencies, has been operating since April 1943 and it has been looked upon as an experimental as well as a developmental effort. Members of the Joint Conference Committee of the three national hospital associations talked over

the plan and certain hospital people were consulted as individuals in regard to it. The whole program, however, was worked out without official consultation with the American Hospital Association, but with the help of a Children's Bureau advisory committee which was made up in part of members of the Association who were invited to participate in the discussions.

The matter was finally referred through Association channels to the Council on Government Relations of the American Hospital Association, and along with it the whole question of federal payments to hospitals. This resulted in the appointment of a subcommittee of the Council on Government Relations to give special attention to such matters. This subcommittee is known as the Committee on the Federal Purchase of Hospital Service.

In its deliberation this subcommittee has considered a number of possible methods of payment by federal agencies to hospitals, including the cost basis, the established rate basis, inclusive rates, a system of rates fluctuating with the index of the cost of living, and uniform rates for a given community based on the findings and decisions of a committee of hospital accounting experts from the community. No matter which method is studied or advocated all seem to gravitate back to the cost principle somewhere along the line, so the committee agreed that the cost basis might just as well be adopted in the first place.

The Committee believes that the principle of paying different rates to hospitals on the basis of individual hospital costs for the most part is fair and it believes further that costs should include a percentage allowance for the use of capital. On September 14, 1944, the Committee met with representatives of the various federal agencies involved for the purpose of discussing the whole problem. There are

many technicalities and legal barriers in the situation. It will take a long time to iron them out even if it is found that they are surmountable. An entirely different approach to the problem may have to be worked out.

A number of objections to the original formula of the Children's Bureau was discovered in the course of the first year of its operation and at a meeting in Washington on March 15 and 16 of 1944 these objections were discussed and remedies suggested in the way of changes. Numerous objections to the method of calculating ward costs at 85 per cent of per capita per diem costs were raised. For the most part these had to do with the widely varying ratio of ward beds to total beds.

It was argued that it was obviously unfair to compel the hospital which had 95 per cent of its beds in wards to figure its ward cost at 85 per cent of its per capita per diem cost and then allow the hospital which had only 5 per cent of its beds in wards to figure its ward cost on the same basis. To correct this inequity a sliding scale for computing ward cost was inserted into the 1944 formula which takes into consideration the variations in number of ward beds in various hospitals.

The ward is also defined as an accommodation having two or more beds. This offers a slight advantage in that it places more beds in the ward category, thus allowing some hospitals to figure ward costs at a higher rate than would be the case if the old definition of wards as those accommodations housing four or more patients were used.

Another objection to the Children's Bureau formula is that it is figured on the basis of adult days only, infant days being left out of the calculations entirely. Cleveland and New York studies have shown that the cost of caring for an infant

amounts to about 25 per cent to 30 per cent of the cost of caring for an adult.

On this basis it is argued that per capita per diem cost should be figured on a patient day total which includes adult days plus one-fourth of the newborn days and that payment for the care of a mother and child should be at the rate of one and one-quarter times the per capita per diem cost. It is true that hospitals are being paid a slightly higher rate for the care of mothers than would be the case if newborn days entered into the calculations and it is also true that babies remaining for further care after the mother is discharged are paid for at the adult rate.

These two facts tend to offset to some extent the losses incurred by reason of the fact that no payment is made for the care of a newborn baby during its normal stay in the hospital, but it should be remembered that we are trying to set uniform rates for all federal agencies and it isn't quite fair to the other thirteen agencies to ask them to pay the higher rate which is encountered when adult days only enter into per capita per diem cost determinations.

Some hospital administrators may wonder about the necessity of employing the complicated method which is used in figuring per capita costs for different institutions. Perhaps they do not see the reason for the various deductions that are made from costs as set up on their books before figuring costs that are to be applied to the Children's Bureau cases. For the most part, all these calculations have to do with the elimination of double charges that would be levied for services if these deductions were not made and with the elimination of costs not properly chargeable and necessary to the actual care of patients.

In connection with efforts that have been made to establish a uniform method

in paying hospitals, the fixing of ceilings at the state level has caused serious dissatisfaction. In Ohio, for example, the industrial rate ceiling was fixed for 1944 at \$6.75 per day and this is practically an all-inclusive rate. Probably none of the important hospitals in the larger centers of the state have a cost as low as this, yet they are forced to extend their charity to industrial firms that are able and willing to pay costs or better.

Certain difficulties are bound to be encountered in the application of any uniform plan of reimbursement to hospitals on a nationwide basis for the very simple reason that it is hard to please the hospital people of forty-eight different states, each of which may have its own peculiar problems.

A greater problem is posed, however, by the previously mentioned lack of uniform accounting among hospitals. The Children's Bureau is finding it exceedingly difficult to determine what the exact costs or even the approximate costs of many institutions are. Any hope for uniform methods of reimbursement must rest upon hospitals learning to talk the same accounting language.

FEDERAL AGENCIES THAT OPERATE THEIR OWN HOSPITALS

1. *Veterans Administration.* Under this agency payments are made to hospitals on the basis of individual contracts. The rates range from \$1.25 to \$7 per diem for ward service including bed, board, routine drugs, and laboratory service with extra payments for additional special service based on an established fee schedule.

2. *United States Public Health Service.* This agency contracts with private hospitals for the hospitalization of members of the Merchant Marine. Contracts are made

with the individual hospitals. Rates vary from \$2 to \$6.75 per diem plus extras, according to agreement.

3. *United States Army.* Members of the armed forces may be hospitalized in civilian hospitals in case of emergency pending transfer to any Army hospital or other federal facility providing they become ill or are injured while on furlough or while they are travelling in line of duty. Bills are submitted on the established rate basis.

4. *United States Navy.* In an emergency and in the absence of appropriate federal facilities, naval personnel on leave or liberty in excess of 24 hours may be hospitalized in civilian hospitals subject to transfer to a federal facility when medically feasible. Naval personnel on leave of absence must pay their own bills. Marine Corps and Coast Guard personnel are included in this category. Bills are submitted on the established rate basis.

5. *Department of Interior.* (a) Office of Indian Affairs—This agency contracts with individual nonfederal hospitals presumably at lowest rates available.

(b) War Relocation Authority—This agency is concerned with the care of Japanese evacuees from the West Coast areas. Rates are based on contracts with local nonfederal hospitals. These contracts generally run for three months.

FEDERAL AGENCIES THAT DO NOT OPERATE THEIR OWN HOSPITALS

1. *Federal Security Agency.* (a) Office of Vocational Rehabilitation—This is a federal-state program in the operation of which grants are made to the states on a 50-50 matching basis. The work of this agency was described in a special bulletin which accompanied Wartime Service Bulletin No. 27 issued March 31, 1944. Its services were further described in Wartime Service Bulletin No. 29 issued on April

21, 1944, and in Bulletin No. 39 issued on September 2, 1944. The federal office of Vocational Rehabilitation purchases hospital care by the same method as that used by the Children's Bureau of the United States Department of Labor in its maternal and its child health and crippled children's programs.

(b) Office of Civilian Defense—The Office of Civilian Defense pays for medical care and temporary hospitalization necessitated by enemy action in the case of civilian volunteers injured in line of duty. Payment is at prevailing rates and, when applicable, in accordance with the states' employers' compensation rates which generally provide for ward care. In most instances a rate of \$5 per diem seems to have been used to comply with the federal Board of Hospitalization rates which presently are fixed at that level.

(c) Social Security Board—Under the titles of the Social Security Act state public welfare departments receive funds for the operation of their public assistance programs. These are administered under state supervision, but at the local level. Hospitals are paid according to a predetermined fee schedule agreed upon in the community. Rates are usually inclusive, allowing for ward service and minimum routine care.

2. *Department of Labor, Children's Bureau.* This bureau has inaugurated what is familiarly known as its Emergency Maternity and Infant Care program which pays hospitals for their services according to a formula on a "reimbursable per diem cost basis." This is a grant-in-aid program in which federal funds are matched with state and local funds. It operates at the state level. Wartime Service Bulletin No. 14, issued on September 11, 1943, describes this plan in detail and Wartime Service Bulletin No. 28, issued on April 21, 1944,

enumerates changes in the program which became effective on July 1, 1944. Wartime Service Bulletin No. 39, issued on September 2, 1944, further supplements the information that has been made available to the hospital field.

3. *Department of Agriculture.* (a) *Farm Security Administration*—This agency loans money to farmers who in turn subscribe for group hospitalization and medical care insurance as recommended by the Farm Security Administration. Rates to hospitals are usually the "going ward rate" charged to all patients. This plan operates at the local level.

(b) *War Food Administration*—The Office of Labor administers a farm labor program which is concerned with migratory farm workers and transported foreign workers engaged in food production. Hos-

pitals deal with divisional health associations and are paid on a prevailing rate basis.

4. *United States Employees' Compensation Commission.* Under this agency hospitals are paid established ward rates plus extras according to a schedule furnished by the commission.

5. *Army Emergency Relief.* This agency pays or did pay per capita per diem cost for the first three days of care and 85% of the per capita per diem cost for additional days of care. More recently the Red Cross has taken over some of the functions of this agency.

American Red Cross. This is a quasi-official organization although not an official agency. It usually arranges rates with each hospital on the basis of established ward charges.

5. The Development of Inclusive Rates, by James V. Class*

ANY review of the literature on inclusive rates or any participation in discussion groups will soon bring out the fact that in spite of the great interest in this subject there are still many people who do not know just what is implied by the term "inclusive rates." The American Hospital Association has appointed a committee to make a study and report on the general subject. While the committee has not progressed very far, there have been several definitions tentatively accepted:

it is recommended that the following amplifying definitions or thoughts prevail:

a—*Modified Inclusive Rate Systems* are those which follow a general basic pattern but which have pre-established charge differentials between principal specialties, such as major and minor surgery, medicine, etc.

b—*Limited Inclusive Rates* are those which do not conform to a general pattern but provide specific rates for different types of service not related to other types, such as 24-hour tonsil and adenoid service, 10-day maternity service, routine laboratory service, and others.

We should not let nonessential details such as cash discounts, payments in advance, bargain rates, and so on distort our thinking in the matter. An inclusive rate system in its fundamental form is merely a rate plan based on the well-established principle of leveling off abnormally high

An inclusive rate system is a plan for apportioning all charges for essential and strictly hospital services to inpatients on a consistent uniform basis irrespective of actual services required, the only fundamental variations thereto arising from length of stay and type of accommodation; it being essential that there be a complete relationship and uniformity of charges between all services such as medicine, surgery, and others. In actual practice, there are many variations and modifications and

* Adapted from *Hospitals* 16:29-34, Oct. 1942.

peaks from a few patients' accounts by averaging those peaks among all of the other accounts.

Our whole economic system is based on what I call the "share-the-hazard" principle and commonly includes:

1. The sharing of risks by the corporate form of business
2. The sharing of life and property hazards through insurance
3. The taxation system for governmental services
4. The group hospitalization plans
5. The public utility rates

All of these work in such a manner that unusual hazards will not fall too heavily on an individual or small group, and accomplish it by spreading the risk over the large group.

Hospitals of the country have been following this principle to a greater or lesser extent in certain details for many years. After hospitals emerged from the almshouse stage, they worked on a simple inclusive rate system, but as time went on many new scientific procedures or gadgets were introduced and the administrative problem of securing a return on investment and operating cost for these innovations created many special charges when the procedures were used. Almost all of these procedures were originally exceptional, so that there may have been some justification.

However, the hospital has evolved from that state and the good hospital today does not offer a patient a piecemeal or *à la carte* service, but actually holds forth a complete, highly integrated service available at all times regardless of individual patient needs. None will ever need or could receive all services available.

It was the heavy burden of charges on some few patients which led certain hospital administrators to challenge the old

piecemeal charge system, and to develop a complete plan of charging which would take into consideration the principle of clipping off the few peak charges and redistributing them, and also to introduce the cost accounting principle so prevalent in business—that of including the standby or ready-to-serve charge as well as the actual cost of labor and supplies applied. Anyone familiar with statistical theory will probably agree that the largest number of incidents will usually cluster near the center of a distribution curve. We should not let the extremes distort our reasoning.

Cost accounting is not very well developed in hospitals and few hospitals know what various procedure costs are, as might be determined by good cost accounting methods.

Many special charges—probably the majority—bear little or no relationship to the cost of the service rendered. Even if we grant that the sales price of an article or service should be based primarily on its value in use to the purchaser, we still would find that there would be a great disparity between cost and sales price which stands out like the proverbial sore thumb when some of these services are carefully enumerated as separate charges on the patient's bill.

One cannot blame a patient for becoming irritated upon receiving a bill showing ten or fifteen cents for two aspirin tablets on a certain day, or a special charge for the catgut used in suturing when already there had been a charge of ten to twenty dollars for the general use of the operating room.

Inclusive rates are like any other economic problem and must be supported by a solid foundation of knowledge of the subject. Before undertaking any rate establishment, the hospital's local conditions should be analyzed carefully as to the fi-

nancial status of the patients served, differentiating between noncontract and contract services, subdivided further if necessary by type of accommodation, type of professional service rendered, length of stay in the hospital, and many others.

As exact requirements will undoubtedly vary to a certain extent in each institution, a simple form of analysis card might be used to good advantage in making an initial study. A card is used for each patient cared for over a reasonable period of time, and shows all the pertinent financial, social, and professional data. By sorting the cards, tabulations of the various factors may be made.

Avoid putting any plan into practice until extensive analyses have been made and definite objectives established.

Establish an ideal rate system after careful study, and then convert accounts of all patients, studied over a recent period of time, to the new plan and analyze and compare the results in all phases.

These comparisons should at least bring out:

- a. Any change in volume of income to the hospital
- b. Effect on patients' accounts as to range, mean, median or model charges
- c. Effect on medical specialty groups, bearing in mind that it is not essential that the old specialty rate experience be retained in identical amounts unless some highly competitive condition requires that an exception be made

If a conservative approach is necessary, put into practice inclusive rates for some of the specialties such as obstetrics; nose, ear, and throat; and others, and gradually expand the plan as conditions warrant.

It will require quite a lot of courage to discontinue actually the old plan completely as at a certain day, and many will run the two plans with options. Remember that options will bring a great amount of

administrative difficulties in dealing with the patients no matter how specific the conditions are stated in the rate schedule; hence, if an optional arrangement is necessary at the start, it should be discontinued as soon as possible.

Under no circumstances can good results be expected if the two plans are kept in use indefinitely.

Items which should ordinarily be included are:

Nursing, except services of a special nurse
 Dietary, except unnecessary refreshments
 X-ray, subject to relationships with roentgenologists
 Anesthesia, subject to relationships with medical anesthetists
 Physiotherapy
 Drugs based on USP, NF, or house formula preparations, but excluding non-standard and possibly very high priced biologicals
 Laboratory services
 Radium

Local conditions may make it impossible to include all of the above, but bear in mind that the purpose of inclusive rates will be defeated if there are too many items excluded.

It is impossible to outline all of the possible combinations which will be just about as numerous as there are administrators to develop them, so I would not want you to infer that these are the only plans you will encounter.

The term "base room charge" refers to a fixed daily charge similar to "room and board" charge. "Surcharge" refers to the amounts added at various stages in stay of patient, to replace the "extra" or "special service" charges.

The illustrations are arbitrary as to time and amounts, and any one detail may vary to fit some peculiar local condition.

Plan A is a straight line charge with no variation except as to length of stay and

type of accommodation. I have used an example of a two-bed room base charge of \$6 per day throughout the various illustrations. This Plan A simply develops a daily charge which will continue as long as the patient remains in the hospital.

In theory it probably is the most complete plan of inclusive rates because it levels nearly all of the cases encountered in the average general hospital to a flat day basis. However, it has the serious objection in that it makes no reduction to the period of time. It is probable that such cases do not require the intensive treatment in the latter period that they do during the early stage. Another rather practical objection is that it does not make a high enough charge to the short-stay intensive diagnostic or therapeutic procedures which are very expensive, and I think that we should endeavor to make a higher average daily charge to that type of case than we do to the long stay. Local competition usually makes it undesirable to use this type of rate.

Plan B is simply a modification of Plan A, and provides that the surcharge will be dropped after running for a given number of days, and that the base room rate only will prevail thereafter. This plan answers the objection raised to Plan A, in that it makes an adjustment to the long-stay patient, but it still does not provide a sufficiently high charge to the short-stay case.

Plan C provides a nonvariable base rate with a fixed surcharge for such services as laboratory and drugs (either for a period of days or indefinitely), but with a variable charge for unusual procedures such as major and minor surgery and delivery room. To the base rate plus the fixed surcharge will be added an additional charge for such services as are shown in the example when and if they occur.

The principal objection to this is that it partially takes the account out of the inclusive rate plan because it still retains an extra charge which may not be possible to determine before the patient is admitted.

Furthermore, it does not provide for a sufficiently high charge in the early stage on many types of diagnostic or therapeutic treatments. It is difficult to follow up with a statistical control.

On the whole, I think that while there may be good points to this plan it should be discouraged. Our actual experience of two or three years showed us that we will still have a great deal of discontent on the part of patients because unanticipated charges are found to have been added to the bill.

Plan D provides for a nonvariable base charge with a surcharge spread over a period of days, but varying according to the type of medical specialty.

I knew of one large hospital which used this. The particular hospital made a variation in the surcharge for the particular type of room occupied, raising the surcharge as the room rate increased.

I recognize the good points to this plan, but it still is open to the objection that the patient and the doctor cannot always determine in advance as to what the charge will be. As I have said, our early experience with similar conditions showed that many times a patient will come in on a low-charge service and have to be transferred to some more expensive surcharge bracket. The collection problem is very definitely increased and made more complex with such a plan.

Plan E is one which has a nonvariable base with one surcharge for all services spread over a given number of days.

A careful scrutiny of this will reveal that many varying conditions may be met with this type of approach. For example,

a major surgical charge invariably will stay seven days or more, and the special service charges will then amount to \$25 in the example used.

A minor surgical case very frequently will not stay seven days, and the surcharge also will be reduced. A diagnostic case in two or three days will bear the heaviest portion of the surcharge.

This may seem to create an objection on the part of some in considering cases on the medical and pediatric services. I have had many people claim that the surcharge is too high on a medical case, and yet it may be a surprise to all to know that the medical staff at the institution with which I am connected raised no objection—in fact, concurred—several years ago when a substantial increase was made in the surcharge.

There are many people who have incomplete knowledge as to the great amount of so-called special services which a medical case may require. Some studies I made showed that medical cases received as much resident staff service, and a great deal more laboratory and x-ray work. This counterbalanced the operating room expense with surgical cases.

This plan also has great simplicity in accounting and billing work, and lends itself very well to statistical studies from time to time to determine the adequacy of the rates in use. It will require courage to start but it comes closest to fitting the definition of an inclusive rate.

Plan F is merely an illustration how certain other supplementary features may be introduced into *Plan E*. In the illustration I have used a cash discount grant of 50 cents per day and a \$2 discount where the room is vacated by 2:00 P.M. on the date of discharge.

Do not start without thinking the problem through many times. This, of course,

is a rather trite expression and covers most anything that we might mention, but it is nevertheless pertinent. A wise administrator will not start with some plan unless he really knows where he wants to go with it.

By all means avoid giving the impression that an inclusive rate is a bargain rate. There is no reason for this. A hospital may provide a bargain rate if it wants to, and it might happen to be an inclusive type of service, but it does not follow from that that all inclusive rate systems are bargain systems.

Try to abandon as many extras as possible when you go into an inclusive rate system.

One fault of some plans, in my opinion, is endeavoring to retain a variable surgical charge which destroys the whole idea because it still makes it impossible for the patient and doctor to know in advance what the charge will be. A plan which includes such charges may be a step in the right direction of course, but should not stop there.

There is no particular reason for tying up an inclusive rate system with cash in advance, cash discount, or other credit or collection incentive.

Avoid rates for certain specific procedures which have no connection whatever with the general inclusive plan. A common inclusive rate is the 24-hour *T. & A. Service* rate, which can be worked out for such procedures and which will conform to the general plan. Often a patient will be admitted intending to take only one special procedure, but will have to be transferred over to another service. There may then be difficulty in adjusting the charge, which can be avoided if all the specialty charges are integrated in the general rate plan.

It should be needless to state that the more simple the plan, the better. Highly

complicated differentiations between type of professional service or type of room occupied, and so on, will only make subsequent check-up more difficult and will not add to the value of the system. It is my opinion that no variation be made in the surcharge for the financial status of the patient; such adjustment should be made by graduating the base room charge.

It is generally conceded that there will be an increase in the usage of procedures put into the inclusive rate plan, and there is a problem of control. However, a reasonable increase will hardly warrant too much concern. Many able administrators feel that a paying patient is often deprived of essential treatment or examination because the conscientious physician is trying to keep the bill down. Therefore, until all of the patients are getting as much service as they need, the use of the so-called special services should be expected to increase.

The director of administration and the chief of staff of any good hospital have a continuous responsibility in control of the use of supplies and services even where no inclusive rate system prevails. The bulk of all patient services is already included in the general room charge, and the use or abuse of nursing, dietary, and similar items, as well as even financial department abuses, must be constantly under the surveillance of the executives.

Just how to go about controlling any waste is a matter which the administrative executive must determine in the light of his own training, experience, and knowledge of local conditions. Usually, accounting or statistical data if well presented may be very valuable, and I might even suggest that it would be desirable, if possible, to develop statistics showing an increase in the ratio of negative findings

where an abuse of laboratory services is suspected.

The administration is also responsible for pointing out increased use and for bringing home to the staff the fact that unnecessary use must result in higher rates to be charged to the patient, which in turn decreases the funds of the patient available for paying the doctor.

The whole question of the hospital's relationship to physicians specializing in roentgenology, anesthesia, pathology, physical therapy, and others is unsettled at this time, and is much broader than the questions connected with the inclusive rate system. Several hospitals that I know of have made arrangements with these specialists which seem to be satisfactory and provide a satisfactory scale of remuneration and maintain the professional dignity of the individual.

Some roentgenologists seem to be willing to perform their services on a straight salary paid by the hospital. Others have income or departmental or profit-sharing plans, and still other institutions may permit the roentgenologist to render a bill separate from that of the institution.

All of these plans can be worked into an inclusive rate system if the administrator and the specialist approach the subject in a rational manner with full knowledge of the facts and a common acceptance of objective.

One hospital had just made a departmental profit-sharing arrangement with the roentgenologist when it decided to develop an inclusive rate system. The administrator analyzed the accounts of the patients over a long period of time and found that the x-ray service had an income value of 25 cents per patient day for all patients. He presented these facts to the roentgenologist, and as a result the department was credited with 25 cents per

day earnings on all of the inpatient accounts.

After a few months, the department found that it was rendering more service per patient day under the inclusive rate plan than it had been before; thereupon an adjustment was made and the roentgenologist was allowed 34 cents per patient day based on the increased volume of services. So far as is known, the roentgenologist was quite satisfied, and actually his earnings from all sources including inpatient, outpatient, and private ambulatory exceeded the flat salary which he had been receiving before. He still had an opportunity to control waste by intelligent management, and acting as a consultant to the patient's physician, suggesting or frowning upon proposed procedures.

Hospital service plans now are very frequently requiring that the professional interpretation charge be excluded from the Service Association plan. That fits in very well with many inclusive rate plans for noncontract cases, and the inclusive rate then will only include the technical services of the department and will permit the roentgenologist to submit his bill directly to the patient in the same manner as any other consultant.

Several institutions of which I have knowledge, including the one with which I am connected, have found that the best results were obtained from their inclusive rate plan by avoiding the publishing of details as to how the rates are made up. I think that it is quite apparent that if a patient knows that on the fourth day there is going to be a surcharge of \$3 he may keep a very close watch of what he actually gets that day, and maybe find that there was nothing which, in his opinion, should have been charged for. Of course he will neglect to consider the other days when he received considerably more than

the surcharge. In the example given, it shows how the patient is only quoted the cost of a given period of days. In our own case, we do not permit the admitting officers or billing clerks, cashiers, or others dealing with the public even to know how the rates are made up. We simply take the stand that our charge for services rendered cannot be divided up.

Some hospitals using inclusive rates have reported difficulties in dealing with insurance companies or group hospitalization plans. The University Hospitals of Cleveland have eliminated practically all of this difficulty by dealing directly with the home office accounting department of each company involved.

A letter is sent by the hospital explaining just how the rates are developed. Any revisions are reported. Local agents or patients do not get that detailed information. So far, no losses have occurred to patient or hospital where handled in this manner.

The Federal Government has recently established a fee schedule for WPA injury cases. The items are so numerous and specific that any hospital can only make up a charge by reference to patients' medical history, regardless of type of rate plan under which it may be operating.

The University Hospitals were not the first institutions by any means to employ a complete inclusive rate system, but the influence of one of its executives created a widespread interest in the results of this particular experiment.

The first plan established a fixed per diem base rate with a series of variable charges depending on the specialty such as medicine, minor surgery without anesthetic, major surgery, and 72-hour diagnostics. It was established after considerable analysis of patients' accounts, and was intended to maintain approximately the

same level of income as before and not to change the volume of income in the various specialties.

It was, furthermore, made optional with the old day rate plan, with the understanding that it could only apply where the account was paid in advance.

Even with these limitations and objections it was successful from the start, and before long at least 95 per cent of all admissions on the obstetrical service were using the new plan. Other services also showed a marked preference.

There were definite obstacles to complete success—first of which was the option. We found that many patients or their doctors would have the case admitted on one basis, study the results for a few days, and then find some excuse for having it reverted to the other, whichever was the lower. Another difficulty was that a patient might be admitted in a lower surcharge bracket, such as minor surgery with local anesthetic, pay the bill in advance, and then find that a general anesthetic was used which called for an additional charge of \$5. Collecting that extra \$5 was the cause of many an argument in the collection office.

After about two years of experience, the old plan was withdrawn entirely and the surcharge basis established along the lines shown in Plan E. After several modifications, we are now using the following surcharge:

First day	\$11.00
Each of next three days	5.00
Each of next three days	3.00
<hr/>	
Total surcharge for seven or more days	\$35.00

There have been many indirect benefits. The room rates were standardized and now there are only seven base room rates

on the private services; whereas before there were some ten or twelve.

The billing is very definitely facilitated by this plan. The bookkeeper merely has to keep account of the particular day or service and post the total charge at one time. There are no postings of extra services, except a few noninclusive items.

The response from the doctors and patients has been very encouraging at all times. The doctors find it of great assistance in telling a patient just what his bill will be, and the patient, in turn, is in a much better position to know what type of accommodation he can afford. Furthermore, his physical progress is not going to be hampered by nervous tension every time he finds himself being wheeled through to the x-ray or physical therapy department for some additional service.

An indirect but very real benefit has been gained by the administrators in that they learned of many unusual conditions prevailing in the institution as a result of the special statistics and practices which were made as a part of their inclusive rate plan control. For example, we, along with most other hospitals, had been going along using the average stay of patients as an index for rate structure and other considerations. However, in controlling the surcharge, we made some extra studies showing the number of patients staying varying numbers of days, and the results were quite amazing. Whereas the average stay of patients on private service was about nine and one-half days, it was found that 45 per cent of all the private service patients stayed three days or less. Such data had a very profound effect on the surcharge, and also provided an entirely new viewpoint as to the trend of service rendered.

There is no hospital administrator that

I know of who will claim that his inclusive rate schedules represent an ideal condition. I think we can all pick out many flaws in any plan which we will examine, but while we are doing this we must not forget that there were worse objections to the old rate basis which the inclusive rate plan is trying to overcome.

There have been some inclusive rate plans put into practice and later discontinued. I would urge you to refrain from any snap judgment unfavorable to the general idea. I hope to get more details regarding several conspicuous features, but my preliminary investigation reveals that

certain features which I have urged you to avoid were present in the plans discontinued.

It will take considerable effort on the part of all aggressive hospital administrators during the next few years. They should maintain a healthy skepticism of any particular arrangement and endeavor to make full use of their imaginations in applying the results of their past experiences.

The sharing of results will be of great benefit to the entire voluntary hospital field. Full use should be made of all facilities for publishing the results.

6. Service Rendered Is Basis of Cleveland Community Fund Subsidy, by Guy J. Clark*

CLEVELAND'S Community Fund was the first organization of its kind in this country. When it was organized in 1918 a number of the hospitals in the community were receiving some support from the Cleveland Federation for Charity and Philanthropy. The Community Fund was organized for the purpose of combining the money-raising activities of several organizations and eliminating duplication by conducting one drive to finance the social agencies in metropolitan Cleveland.

The Welfare Federation of Cleveland was organized at that time as a planning body and distributing agency for the funds raised under the unified plan, but the Jewish Welfare Federation was continued for distribution of funds to its agencies. The existing method of distributing funds to hospitals and other agencies was on a deficit basis. This system was continued for many years, and is the practice still followed in most communities.

There were many reasons why no other method had been devised for financing

these agencies. A considerable portion of them was—and still is—almost entirely dependent for operating funds on such financing. In the case of hospitals with considerable earnings, adequate records were

* Adapted from *Hospitals* 18:59-62, June 1944.

NOTE. These definitions of the three types of days on which estimates are based are used by the Community Fund authorities:

SERVICE DAY—A service day is one day of hospital care rendered any patient who, because of his financial status, is classified as unable to employ a private physician and pay in full the minimum established hospital rates charged patients under private medical care.

CERTIFIED FREE DAY—A certified free day is a service day rendered without charge to a patient who has been certified as unable to make payment for hospital care by agencies permitted to make such certification.

CERTIFIED ALLOWANCE DAY—A certified allowance day is a service day rendered to a patient, who by reason of his economic status is unable to pay a private physician, and pays less per day (including special charges) than the hospital is being reimbursed by the Welfare Federation or by the county at the maximum per diem rate for indigent inpatient service when certified as unable to make full payment for hospital care by agencies permitted to make such certification.

not available to determine any better basis for the allocation of funds.

Prior to the establishment of the Community Fund the hospitals had been closely associated through a Hospital Council. This organization was continued for co-ordination of hospital activities, and to discuss common problems and take concerted action. The hospital administrators made frequent reference to the fact that certain hospitals were giving an unduly large number of community days without receiving a commensurate amount of funds as compared with others whose deficits were in larger amounts.

During the years these discussions took the shape of requests for the development of some method for more equitable distribution of the available funds, based on service rendered. There was dissatisfaction on the part of some hospital officials because of what they believed to be an unfair distribution, and resistance on their part to continued preparation of elaborate estimates of need to be presented at hearings held with budget committees, only to be allocated a very small amount of funds to apply against their next year's operating expenditures.

In the development of a system of uniform accounting and a uniform method of recording statistics, the reports prepared from this comparable information became available in the monthly reports received by the Welfare Federation. Through this data individual hospitals gradually became better acquainted with one another's work. With more such comparable statistics available, proponents of payment on a service basis presented a strong argument for their plan, and no rebuttal was sufficiently convincing to deny the justice of the practical plan for allocation of funds donated by the public for community service.

Through the medium of the Cleveland Hospital Council, the hospital administrators, after considerable study, brought to the attention of the authorities a partially developed plan providing for the payment of community service on a basis of service rendered rather than on a deficit basis. They contended that the adoption of such a principle of payment would in no way interfere with the strong appeal that the Community Fund annually made for the support of hospitals. Many administrators also thought that such a plan would result in spreading the community service to a greater degree than under the deficit basis, as some of the hospitals were not in a financial position to accept as many patients as they would under more favorable circumstances.

Actually it was true that a large portion of the free service at that time was centered in a few hospitals, with a resultant inconvenience in some instances to the patient and his relatives. A full analysis of the situation did not leave any point on which the request could be denied.

Many have had a similar experience at some time or other with money distributing agencies. Some have fared very well so far as receiving the cost of service rendered is concerned, while others have received only a very small portion of the cost of the service provided. This was due to reasons, one of which may have been the fault of management, another the fault of the type of building used for hospital service, another the clientele served, and—in some instances—unreasonable demands on the part of the general public.

The plan in effect in Cleveland in more recent years is known as the "principles for the allocation of subsidy," and provides for eligibility of hospitals to participate in the distribution of available funds. All participating hospitals have ap-

proved eight points outlining conditions with which they will make an effort to comply if funds are to be allocated. It is no longer necessary for the chief administrative officers and their boards of trustees to prepare an elaborate estimate of the possible deficit at which they may operate for the following year. The estimates are made by the central office, based on factors and data in the reports received from each hospital at regular intervals.

The hospital administrator knows definitely at the outset of each year that his institution will not be paid for service in excess of that which is rendered, nor will it receive any subsidy other than that which is earned. The plan in effect provides for the reimbursement of hospitals at an agreed upon rate for (1) free inpatient service; (2) allowance inpatient service; (3) clinic visits; and (4) free emergency visits. Total funds received are, of course, limited to the amount available from the distributing agency. In almost every instance the rate of reimbursement does not equal the cost to the hospital of providing the service, and while there are some differences of opinion on the principle of not paying full per capita per diem cost, there are sound arguments on both sides of this question which can be presented and substantiated by persons well acquainted with hospital affairs.

The procedure for subsidy allocation was not fully devised after one year's experience but was changed from time to time. On each occasion the administrators believed it was improved.

Each year it is necessary to estimate the probable needs of the hospitals for the coming year, in order that the Community Fund may arrive at an amount which they will include in their campaign goal for hospitals. Development of that estimate is based on these factors: (1) care of free in-

patients; (2) care of allowance inpatients; (3) care of outpatients and free emergency patients; and (4) budgetary requirements of the Cleveland Hospital Council.

1. *Care of free inpatients:* (a) The estimate of the number of days shall be based upon the certified free days for all hospitals for the three-year period ending April 30 of the current year. (b) In estimating the total value of free inpatient days of service, the estimated number of free inpatient days shall be multiplied by the subsidy rates.

2. *Care of allowance inpatients:* (a) In estimating the total value of allowance inpatient service, the estimated number of certified allowance days shall be multiplied by 60 per cent of the subsidy rate. (b) It is understood that inpatient days of service rendered patients are not to be recorded as allowance days of service when the patient pays the established hospital charges or pays more than the agreed upon maximum subsidy rate for free days.

3. *Care of outpatients and free emergency patients:* (a) The estimate of the number of visits shall be based upon the number of outpatient visits and free emergency visits for the 3-year period ending April 30 of the current year. (b) In estimating the total value of outpatient visits and free emergency visits, the estimated number of visits shall be multiplied by the weighed average net cost "excluding depreciation" of clinic visits of all outpatient departments for the 12-month period ending April 30 of the current year. This rate is to be adjusted on the basis of forecastable changes in salaries and commodity costs.

4. *Budget of the Cleveland Hospital Council:* The budget of the Cleveland Hospital Council shall be added to the total needs of subsidy for hospitals, and such estimate shall be based on service rendered by the Council to the hospitals.

In estimating the total subsidy needed by hospitals, the value of free inpatient days of service, allowance inpatient days of service, outpatient and free emergency visits, and hospital council services, as computed according to the foregoing formula, shall be totaled. From this sum shall be deducted the total value of service which can be paid for by the income from those endowments which, by the nature of the trust or endowment, are considered as being for free hospital service.

In estimating the number of certified free days or the number of outpatient and free emergency visits to be paid for from this source, the current patient day cost "excluding depreciation" or the net clinic visit cost "excluding depreciation" of the hospital in question shall be used.

In making the final estimate of hospital needs of subsidy, the budget committee may adjust the needs as computed according to the foregoing formula where changes in hospital policy or community needs warrant such adjustment.

In distributing funds of the Welfare Federation, the estimated needs of the Cleveland Hospital Council to cover the cost of its centralized services is deducted from the total available.

The total sum is apportioned between free inpatient days of service, allowance inpatient days of service, and outpatient and free emergency visits, according to the value of these various services as determined in estimating the total need of hospital subsidy. This apportionment is adjusted to the amount of free inpatient service which is paid by the local governmental agency.

The amount available for free inpatient days of service is distributed between the hospitals in proportion to the ratio between the total number of certified free inpatient days of service rendered during the 33-

month period ending September 30 of the current year, and the total number of free inpatient days of service rendered by all hospitals; provided, however, that in arriving at this ratio the free days of service which can be paid for by the individual hospitals at the hospitals' per capita cost, "excluding depreciation," from the income available from endowments considered as being for free hospital service, be deducted from the total certified free days.

The amount available for allowance inpatient days of service is distributed according to the same method of distribution as used for free inpatient service. Adjustment is made when distributing Welfare Federation and county funds so that each hospital may have funds available for the number of days allowed.

The total amount available for outpatient visits and free emergency visits is distributed between the hospitals in proportion to the ratio between the total number of outpatient and free emergency visits in a given hospital during the 21-month period ending September 30 of the current year, and the total number of outpatient visits and free emergency visits for all hospitals for the same period.

The number of OPD visits allotted to each hospital is multiplied by the net cost "excluding depreciation," not to exceed the weighted average cost "excluding depreciation" of all outpatient departments for the 12-month period ending September 30 of the current year.

The number of free emergency visits allotted each hospital is multiplied by the weighted average net cost "excluding depreciation" of OPD clinic visits for the 12-month period ending September 30 of the current year. Any excess of deficiency between the amount allotted to outpatient departments, and the needs to meet the net costs "excluding depreciation" per visit up

to the weighted average cost "excluding depreciation" for all outpatient departments, as calculated above, is distributed pro rata, according to these needs.

In making the final allocation, however, the budget committee may adjust the amount allotted to any individual hospital where changes in the hospital policy or community needs warrant such adjustment.

If a hospital has not earned its full quota of any of the above three classifications, but has overrun its quota in one of the others, funds allotted for one service may be applied on the other services.

Procedures for billing the Welfare Federation and Cuyahoga County are the same from year to year in general principles, but are changed annually to meet the specific requirements of the parties involved. It is understood, however, that the following procedure shall be followed in order to determine the actual amount of community service rendered by each hospital:

1. That each hospital bill Cuyahoga County for all indigent inpatient days of service at the current subsidy rate, which can be certified as a responsibility of the county under the procedure prepared for such billings.

2. That each hospital bill its respective Welfare Federation for all free inpatient days of service at the current subsidy rate which the hospital can certify. The billings to the Welfare Federations would not include complimentary days or personnel days. Each hospital makes a memorandum billing to the Welfare Federation for services paid from endowments.

3. That each hospital be requested to bill its respective Welfare Federation for all allowance days' care at the established rate to be paid for this service regardless

of the amount of funds available for the payment of this service.

4. That each hospital bill its respective Welfare Federation for all outpatient and free emergency visits at the established rate to be paid for these services regardless of the amount of funds available for the payment of these services.

Estimates of need of subsidy are prepared by the Council office, and after the total available has been determined the distribution is computed, but final decision is not made until such time as it has been reviewed by a small committee of hospital administrators and by the board of trustees of the Council as the budget committee. Finally, it must face the approval or rejection of the hospitals individually and as a group. There have been but one or two occasions in the past ten years when any question has been raised as to the amount which a hospital received, and then the proper committee reviewed it and made any necessary adjustments.

The task is not completed when the allocation of funds has been made. If the final distribution to the hospitals is to be continued on an equitable and workable basis, it is essential that provision be made for each hospital to determine what patients are eligible for billing. For approximately two years after the adoption of this method of reimbursing hospitals there was no well-established practice for the determination of eligibility and each hospital was permitted to say which were totally free or allowance cases, subject of course to reasonable effort in obtaining facts concerning the patient.

The Council office operates a collection service, and while hospitals could get information for a small fee by requesting an investigation, such reports were not so complete as was desirable; nor was the service mandatory. At the time this plan

was adopted, negotiations which had been under way for a number of years with officials of Cuyahoga County were completed. Under this arrangement funds were appropriated for reimbursing voluntary hospitals in the community for free inpatient service by the county.

The county commissioners were somewhat concerned about the plan, as there was no definite, uniform scale in effect for determining eligibility of patients to receive hospital care at county expense. Over a period of time this problem was discussed on a number of occasions in joint meetings of the county authorities and the board of trustees of the hospital council. It was finally decided that in order to provide adequate information concerning patients an investigation service should be established in the Council office.

It was agreed that this central investigation service would investigate all patients admitted to this group of hospitals who, in the judgment of the proper authorities of the hospital, were unable to meet the cost of their care. It was further agreed that the service be made available to the county authorities without cost, with the understanding that they would not establish an investigation service of their own. The service was authorized to make certifications to the individual hospitals for service to be billed, either to the county as their responsibility, or to the Welfare Federation, to be paid for from funds raised through the efforts of the Community Fund.

The service was established for the following purpose: "To secure for the member hospitals sufficient data to properly record community service on which certification can be made to governmental units and the Welfare Federation; to assure the hospitals of reimbursement for community

service up to the amount of funds available for this purpose; to secure the data and to make the proper interpretation of the information available, and assure certification for the proper classification in recording of patient days."

A satisfactory procedure was developed after advice from hospital administrators, admitting officers, and social service departments. Provision was made that the hospitals would not have to accept the recommendations of the central investigation service, but could protest the report if the proper authorities disagreed. It was understood, however, that no hospital would receive payment for service rendered unless such service had been certified by the central agency.

This agency is under the control of the hospitals which are the principals in this plan. It was agreed that the plan should make provision to avoid any misapprehension on the part of the donors to the funds or the general public, and from the very outset it was understood that no admitting bureau should be established in an industrial community such as Cleveland; that patients should be admitted and service rendered, with determination of their ability to pay being made later—such determination to be made either after admission or after discharge. In a few instances investigations are made before admission, but this practice is very definitely discouraged.

This outline may have raised the question: Does the method of allocation of subsidy and the investigation service system work to the satisfaction of the institutions interested? No better answer could be given than to state very emphatically that hospital administrators and their governing boards have without exception, to the best of my knowledge, accepted the plan now followed for the allocation of sub-

sidy as being equitable. They have also accepted the central investigation service method of determining eligibility, and I feel justified in making the statement that they would strenuously object to reverting to the old method.

The hospitals, insofar as I have been able to observe from the very inception of the central investigation service, have been well satisfied that such service is the best method yet devised for determining eligibility for community service. It makes it possible for an unprejudiced, unbiased group of employees to make determinations as to eligibility for service at the expense of the proper organization on a basis which will be uniform for each hospital. Unquestionably such a system has its advantages, as no two hospitals could be expected to make the same determination in any large group of cases. A number of cities in Ohio have, during the past few years, adopted a very similar plan for their own communities.

The hospitals in Cleveland have adopted as a community policy the rule that first-aid service must be provided promptly and courteously in order to protect the health and welfare of all citizens. It is for this reason that provision was made in the distribution of funds to reimburse hospitals for free emergency visits, at a rate equal to the weighted average rate paid for clinic visits. No investigation is required, as it is to the advantage of the hospital to collect from the patient, if possible, in order to conserve funds for billing of other services.

It is but natural for one to judge any proposal by the effect that it might have on his own particular institution. It is questionable, however, that any person can present any sound argument against the principle of paying for services rendered, although it is readily agreed that there could be great differences of opinion as to the rate which should be paid.

7. Approach to a Cost Study of Nursing School Operations, by *Louis Block**

WHEN this nation was confronted by an emergency need for nurses, a program for supplying nursing service was designed. At that time only a few nursing schools had been able to study and analyze their costs. Some excellent results had been published in professional journals, but not a sufficient number on which to base estimates for the federal nurse training program.¹ It was therefore necessary to plan assistance to nurse education in accordance with the best information available, and to initiate a cost analysis study with the expectation of concurrently improving and refining fiscal features of the plan.

All thoughtful administrators of nurs-

ing schools and hospitals have been concerned with this problem of cost analysis as basic to good administration, and have hoped for the development of techniques that would assist them in planning and improving school programs. The study of the cost of nursing education, undertaken by the U.S. Public Health Service for a specific purpose, was recognized from the start as important from many other points of view.

The one fact about which there is full knowledge is that costs vary widely from

* Adapted from *Hospitals* 20:66-68, July 1946.

¹ The Bolton Nurse Training Act, passed unanimously by the 78th Congress, June 1943, which established the U.S. Cadet Nurse Corps.

school to school. It is the factors determining these variations that need to be analyzed.

Results of cost analyses in business indicate that separate organizations such as nursing schools should analyze their own costs in order to answer these questions satisfactorily; that generalizations drawn from even a large number of studies might not be applicable in all individual schools. The first step toward solution of the common problem is the formulation of a technique that can be used by each.

The approach to the Public Health Service cost study and the problems encountered along the way are the topics discussed here. Tabulations of the findings are being prepared and it is hoped that a report of the end results, as well as the procedures, may be presented in the near future.

This first job was the selection of the schools of nursing to be surveyed. In compiling the list, the following factors were taken into consideration: size of the hospital with which the school was connected, geographical location, student enrollment, ownership control, range of tuition, and fee charges.

Next it was necessary to set up a plan that could be used uniformly in the schools selected. Because hospital accounting procedures do not conform to a standard pattern, and because the complexity and interrelationship between the various functions in hospitals make it difficult for them to apportion expenditures directly to a particular function, it was recognized that any study of nursing school costs would be faced with certain definite limitations.

For instance, if a hospital maintains or is related to a school of nursing or to a medical school, or to both, cost analysis is complicated by the need for an accounting of activities that are primarily, although

not solely, of a service nature. In such situations, it is necessary to differentiate the costs involved when individuals render service to the institution while receiving an education, or participate in supplying both educational and service functions of the institution. Due to lack of accounting data in basic nursing, costs frequently had to be determined by a selective process decided on by the consultant conducting the study and the individuals involved in a particular situation.

In general, there are two types of costs that may be considered in analyzing the relationship of a nursing school to a hospital:

1. Average cost: That proportionate share of the total cost of operating an institution which is allocated to the operation of a school of nursing.

2. Avoidable cost: All costs added to the operating expenses of a hospital maintaining a nursing school because of the school.

Since costs actually do not always behave as portrayed by the average cost approach, the avoidable cost approach is sometimes selected. However, in the case of this study, avoidable costs could not be determined from the data available in most institutions. To determine these costs would have necessitated extensive study and analysis of each function affecting the school of nursing. The need for such data, incidentally, was well illustrated in *Administrative Cost Analysis for Nursing Service and Nursing Education*, published jointly by the National League of Nursing Education and the American Hospital Association as a guide to the technique of cost analysis in this field.²

² *Administrative Cost Analysis for Nursing Service and Nursing Education*, by Blanche Pfefferkorn and Charles A. Rovetta, Chicago, American Hospital Association, and New York, National League of Nursing Education, 1940.

The average cost approach assumes an equal unit responsibility between functions in the operation of a hospital. For example, a single meal—whether patient, student, or other employee—carries an equal weight in relation to the expenses incurred in the operation of the dietary department. Similarly, a square foot of area in the nurses' home requires the same amount of heat, light, power, and housekeeping as a square foot of area in the hospital. Although this approach is not infallible, it has wide acceptance in the accounting field, and since its principles could be applied to existing hospital data, it was selected as the method for this study and was consistently followed.

The items and amounts of the costs of those items involved in the operation of a nursing school over a period of one year were determined in accordance with the following three major categories: direct costs; indirect salary costs; other indirect costs.

Direct costs, those applicable to the maintenance and education of the students, include items of expense directly assigned to the school and to the maintenance and operation of the student residence: textbooks, library books, indoor uniforms, special lectures, nursing school office supplies, classroom supplies, and the salaries of full-time teaching personnel, housemothers, as well as of senior cadets, since these schools were all participating in the Cadet Nurse Corps program. These costs were abstracted from the general ledger and/or operating statement of the hospital.

In determining indirect salary costs, that is, the salaries of personnel serving jointly the nursing school and the nursing service, the proper apportionment of time involved was decided on by the supervisor and the director of nursing in accordance with the

following factors: (a) number of hours of formal class teaching; (b) number of hours of student orientation to the ward or nursing unit; (c) number of hours of ward conference; (d) number of hours of ward teaching; (e) miscellaneous hours such as those spent in rating students and correction of examination papers.

The total hours derived were related to the individual's annual, monthly, or weekly work hours, depending upon the base used, and were estimates rather than actual counts due to the lack of such information as activity analyses, time studies, and written records of ward teaching programs.

Other indirect costs, applicable also to the maintenance and education of students, which cannot be charged directly to the school but in which the school participates, include: insurance on buildings and equipment, repairs and replacement or depreciation, administration, plant operation, housekeeping, laundry and dietary. While the principles of allocating indirect costs are fairly well established and agreed upon by accounting authorities, the techniques vary from the allocations on the basis of simple, direct distributions to the more complex procedures involving cross allocations to auxiliary functions prior to their allocation to the revenue-producing functions of the hospital. The technique used in this study represents a mid-point between these two extremes, and involves an allocation of nonrevenue-producing costs to all departments served.

To determine nursing school costs in accordance with the techniques presented, the following basic information is necessary:

1. Determination of proportion of time of nursing supervisory personnel chargeable to nursing education.

2. Distribution of hospital area, by departments.
3. Distribution of salaries, by departments.
4. Distribution of laundry, by departments.
5. Distribution of meals served, by departments served.

The sum of the direct and indirect charges represents the total cost to the hospital of maintaining a school of nursing.

An analysis of the operation of a nursing school includes also the income available to the school. Normally the sources and amounts of available funds can be classified as follows: tuition and fees; miscellaneous school income, such as gifts and endowments; value of student service.

While nearly all hospitals include receipts for student tuition and fees as well as miscellaneous school income in their accounting records, it is the unusual institution that includes an accounting of the value of student service in either its general ledger or its annual operating statement. One reason for the omission of this most important income item is that, although the institution may recognize the value, it does not involve an actual transaction of money. Since this income item should affect decisions regarding school policy, it should appear in the budget of every hospital which operates a nursing school.

The value of student service can be determined in several ways. The method used for this study was as follows:

1. Selection of a full twenty-four-hour period (day, evening, and night) on a particular day approximating an average condition with regard to patients and nursing personnel, students, graduates and nonprofessionals. The day was decided on by the director of nursing or by the director and the hospital administrator.

2. Analysis of all bedside nursing service during the selected twenty-four-hour period, based on available daily time or assignment records.

3. Determination of the hours of replacement service by graduate or nonprofessional nursing help that would have to be added if the hospital operated without a nursing school. This was figured by the director of nursing and the supervisors of each of the hospital's units where students were placed.

4. Determination of the cost of such replacement service. A summary ratio of the total replacement for all nursing units in which students served to the total student hours of service given during the selected day yielded a percentage relationship of an hour of student service to its graduate general duty nurse hour and/or nonprofessional nursing help hour equivalent in every unit of the hospital. This percentage, known as the "effectiveness factor," multiplied by the total hours of service rendered by all students in these units during the year, gives the total replacement required in terms of graduate or nonprofessional nursing help hours. These hours multiplied by the average hourly salary of each group included in the replacement yields a monetary value of student service.

The technique used to arrive at the value of student service depended on two important factors: records of hours of nursing care and records of hours of student class and practice.

The basis of all reporting of nursing service is the daily time or assignment record. In very few instances were cumulative records maintained, so the day selected had to be one for which such a time sheet was available in order to determine distribution of service hours by types of personnel rendering that service.

However, all too frequently, not even daily records give an accurate picture of the actual situation. They are merely plans prepared in advance and are, therefore, subject to change without notice when unexpected absences, illness, and other emergencies occur, involving a reshuffling of available staff to give the best possible coverage.

Similarly, there was in most instances no cumulative record of student service hours, and the total had to be determined on the basis of the weekly hours of class and practice as reported to the Division of Nursing of the Public Health Service.³

The value of a systematic method for analyzing costs in a school of nursing, to provide factual material rather than information from which subjective interpretation must be made, was clearly emphasized recently by Edgar Blake, Jr., superintendent of Wesley Memorial Hospital in Chicago, when he stated that "the best feature of the Cadet (Nurse Corps) program, administratively speaking, was the necessity of carefully segregating and accounting for the funds used in the nursing school. Many hospitals for the first time felt the need of accurate cost accounting in their school records and consequently have gained a clearer picture of the relationship between costs of the school and the value of the student nurse's time."⁴

Obviously, accurate cost analysis information has definite value for the hospital administrator and the director of the school of nursing in determining school policies. Any plan of operation for a school has certain basic needs, informationwise. Highlighted on the list is the determination of the value of student service as a most important source of income available to the school. Is this value less than, equal to or more than the cost of providing the school program? If greater, it might well

be used to cover additional costs of the program. If less, the hospital operating the school may wish to question whether the community need for the school justifies an annual loss and, if so, to seek additional funds to meet this need. Cost analysis provides the necessary answers to such problems and acts as a tool in immediate or long-term planning for individual schools or groups of schools.

Realization of the limitations imposed by circumstance on the techniques employed in this study prompts certain suggestions for additional refinements of cost data procedures:

1. In computing the value of student service, the one-day survey might well be augmented by a survey of additional periods covering different days of the week and different months of the year.

2. Determination of student service value could be made on a ward-by-ward basis for the entire year, rather than on a total institutional basis.

3. There might be revision of record-keeping systems and actual revision of the forms used, to include a breakdown of the total nursing service by types of personnel, and numbers of hours in each group. Summaries of these records should be cumulative in monthly and annual reports, and would provide the necessary information for determining the replacement percentage or "effectiveness factor" of the student's hours of service.

Until such basic information is collected in a routine manner through the use of current and adjusted records kept over a longer period of time, subjective interpretations, rather than facts, will have to remain the basis for allocation of many items of cost.

³ Form 50.1, page 8, Application for Continued Participation.

⁴ Edgar Blake, Jr., Plan for financing our nursing school, *Mod. Hosp.* 66:58, Feb. 1946.

The current nationwide interest in designing a system of nurse education to provide nursing service to meet community needs leads inevitably to a consideration of the cost of producing the necessary nursepower. It is of vital interest to the producers and consumers of that nursepower—hospital boards and administrators, members of the medical and nursing professions, other civic leaders, and the general public—that such cost be accurately determined, so that, if an increased investment is indicated, all may share in what is so definitely a community project.

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CHAPTER XXI. LEGAL ASPECTS

1. Rule of Immunity for Hospitals Is Narrowed by Recent Court Decisions, by *Emanuel Hayt**

FOR many years the general rule of law in the state of New York has been that a charitable hospital is not responsible in damages for the negligence of its physicians and nurses in the treatment of a patient—provided the institution has used reasonable care in the selection of such personnel.

From a legal standpoint, physicians and nurses engaged in treating a patient do not act as agents or employees of the hospital, but as independent contractors. Nurses are employed to carry out the orders of the physician to whose authority they are subject; the hospital merely procures for the patient the services of the nurse, without undertaking to render those acts itself.¹

Recent legal decisions, however, have restricted the immunity to accidents in which the injuries arose solely out of the actual medical care of the patient. A recent case illustrates this principle. Following reduction of a fractured femur the patient was returned to her room in the surgical ward. She became irrational and sideboards were put on her bed.

After a while the attending physician suggested that she be removed to the solarium because there was no other room to which to transfer her and she would be the only patient in the solarium that night. He did not think it would be necessary to have her watched, and so she was left alone all night except for occasional visits by nurses. In the morning it was discovered that she had fallen out of bed.

When the case came to trial the evidence clearly disclosed that no instructions had

been given by the doctor to have the patient constantly watched. Whatever care she did receive was upon the order of the physician, which instructions were compiled with only by registered nurses.

The number of nurses on duty, it appeared, was ample for the needs of the patient, whose condition immediately prior to the accident was deemed to be such, in the judgment of the professional nurses who observed her, that she could be left alone.

In dismissing the complaint, the court held that the nurses were engaged solely in the performance of the professional act of caring for the patient; that there was no question but that the nurses employed were competent and that they carried out the physician's orders; that the hospital had fulfilled its obligations.

"It placed the patient in a suitable and safe place as ordered by her doctor. It furnished ample nursing facilities to the patient and her physician. There was no special nurse ordered on the case by her doctor. His orders were carefully carried out."²

Following an operation and while the patient was still under the influence of the anesthetic, she was taken to a recovery room and placed upon a bed, from which she fell, sustaining certain injuries. The bed in the recovery room was equipped with adjustments permitting the insertion

* Adapted from *Hospitals* 18:53-56, Sept. 1944.

¹ *Schloendorff v. The Society of the New York Hospital*, 211 N.Y. 125, 105 N.E. 92.

² *Lee v. Glens Falls Hospital*, 265 App. Div. 607, 42 N.Y.S. 2d 169, affd. 291 N.Y. 526, 50 N.E. 2d 651.

of sideboards. These, available in a sufficient quantity when needed, were kept in a supply closet diagonally across the corridor about ten feet from the recovery room.

The practice prevalent in the hospital was in substance as follows. The doctor, the anesthetist, and a nurse place the patient in a bed in a postoperative or recovery room and determine her condition; postoperative care depends a great deal on how the patient is reacting; the technique is not too rigid since different cases require different attention; a fairly broad sheet is placed across the patient and tucked in underneath the sides to prevent excessive moving around; should the patient be restless and roll her head back and forth, she would be watched or a removable rack or rim placed alongside the bed so that she would not be able to roll too far; sideboards are used, but not always, because the strength of the sheets is sufficient to prevent a patient from rolling out of bed, but it is for the head or charge nurse to decide whether, in the existing condition of a patient, the use of sideboards is necessary.

In the case in question, the head nurse testified that the plaintiff was brought down from the operating room by a doctor and an anesthetist, both of whom stayed a short time with her while she was tucking the patient in bed. After the doctor and the anesthetist departed, she remained by the plaintiff's bed until the arrival of a female ward attendant whom she sent to fetch sideboards to be put on the bed because the patient was a little restless and moaning and groaning.

The attendant brought in the sideboards and aided the nurse in adjusting them on the bed. They drew an over-bed table up to meet the sideboards and withdrew in a few minutes leaving the patient unattended and alone, except for another patient who

then occupied the remaining bed in the room.

The evidence on behalf of the patient was to the effect that there were no sideboards on her bed prior to the accident; that she had kicked off the bedsheet and blankets and had fallen over the side of the bed; and that the sideboards were not put on the bed until after the accident. The principal witness giving this testimony was the other patient in the room, who had been operated on the same morning and had recovered from her anesthesia before the accident.

Considering the testimony in the case, the appearance of the sideboards and over-bed table, as adjusted to the bed and shown on a photograph, the court was convinced—so far as the conflict of testimony on the question of whether the sideboards were placed on the bed before the accident is concerned—that the evidence favored the patient.

The court said that if after observing the patient, the head nurse had decided that sideboards were not necessary and for that reason they were not used, that would have been a decision made in her professional capacity in the course of her nursing duties in caring for and attending to the medical welfare of her patient, for which the hospital, having made sideboards available, could not be held responsible, if damages resulted because the decision proved to be wrong.

In this case, however, a decision to use sideboards was made and a different question thus is presented, since the professional judgment was properly made, but not carried out; it is the failure to follow up that judgment by the physical act of placing or having the sideboards placed on the bed which was the competent and producing cause of the act.

The attachment of sideboards to a bed

for the protection of a patient recovering from an anesthetic following an operation is a manual or physical act which could be performed by anyone in the hospital's employ; it involves no professional knowledge, skill, or experience. Neither the performing of the manual or physical acts indicated by the professional judgment of the nurse nor the omission to perform them constitutes professional caring for and attending to the medical welfare of the patient.

It is the character of this failure upon which the court held the hospital liable, for in failing, under the circumstances here, to attach the sideboards to the patient's bed or causing it to be done, the head nurse was guilty of an omission "not directly concerned with medical treatment" in respect of which she must be considered merely as the servant of the hospital.

For the injuries, pain, and suffering sustained by the patient and the pain and expense of the contemplated operation to correct the impairment and appearance of her nose, she was awarded damages in the sum of \$2,500.³

There are also cases in which the person serving the patient acts in a dual capacity. When that person participates in the medical care of the patient the hospital is not liable for carelessness, but when the act is unrelated to treatment the institution is responsible. In one case, an intern and an orderly both transferred a patient from an ambulance to the examination room of the hospital and then left him for a short interval, during which the patient fell from the top of a wheeltable.

As a charitable institution the hospital was relieved from any liability to the patient for his subsequent injuries, on the theory that the duty of the orderly as such terminated when he delivered the patient

into the custody of the intern for treatment in the examination room. If there was any negligence it would have to be predicated upon the failure of the intern to remain with the patient. The status of the intern in staying with the patient would have been that of a nurse in attending the patient; his carelessness therefore could not be attributed to the hospital.⁴

On the other hand, the mere fact that the act is performed by a nurse does not of itself absolve the hospital of responsibility to an injured patient: it is the *character of the act done* and *not the person doing it* which determines whether the function is of treatment or otherwise.

The placing of hot water bottles upon the body of a patient while under an anesthetic undoubtedly is in aid of and in the course of medical treatment. Thus, if it is found that the negligent act causing the burn was concerned directly with the medical care of the patient and there was no negligence in the selection of the individual who committed the act, there can be no recovery.⁵

In another action, it appeared that before the patient was taken into the operating room, a hospital attendant brought in an electric light lamp having a reflector, which was hung on top of the bedstead at the foot of the bed. The lamp was attached by two hooks similar to the earbows of eyeglasses.

Preparatory to and for the purposes of the operation, the patient was given a spinal anesthetic which "deadened" his body from about the middle of his torso

³ *Ranelli v. Society of the New York Hospital*, Supreme Court, Queens County, N.Y. *Law Journal*, June 22, 1944, p. 2410.

⁴ *Andrews v. Roosevelt Hospital*, 18 N.Y.S. 2d 447, 259 App. Div. 733.

⁵ *Sutherland v. N.Y. Polyclinic Medical School & Hospital*, Supreme Court, N.Y. County, N.Y. *Law Journal*, June 2, 1943.

to the end of his feet. When he was brought back to his room by two attendants the patient did not see the lamp on the bedstead. He was put into bed and covered with a sheet and spread which had been there.

At about midnight, when the patient became conscious, he felt a burning sensation and complained to a nurse, who lifted the bed clothes and removed the same electric light lamp which had been hung on the bedstead, but which evidently had fallen down and burned his feet. The hospital was held liable for the negligence of the attendants because their acts or omissions were not directly concerned with medical treatment.⁶

Conversely, if the work being done is associated with the patient's medical treatment, it does not matter that the negligent act was committed by an orderly rather than a nurse: the hospital is relieved of responsibility in either case because the designation of the person is immaterial.⁷

In addition to interns, nurses, orderlies, and attendants there is another class of employees which never participates in the patient's treatment, but such persons perform services for the patient. For example, in that category is the ambulance driver, for he is a "true servant" of the hospital.

The question of whether a charitable institution is liable for the negligence of such persons has been answered by a decision of the New York Court of Appeals in an action by a patient who sought damages for injuries sustained by her on account of the alleged negligence of the ambulance driver of the hospital who collided with another vehicle while conveying the patient to her home.

The hospital alleged as a complete defense that it was a charitable corporation conducting a hospital for the benefit of the public and not for private gain; that

all funds received by it were at all times held in trust for charitable purposes; that it never had been run for the profit of its directors or trustees or of those who had given funds for its purposes; that it had no capital stock, paid no dividends upon sums contributed, and paid no salaries except to employees for services rendered; and that no financial benefits of any kind accrued to its directors or organizers.

The court, however, held the resources of a charity not to be exempt from the payment of damages to a beneficiary of the charity who is "injured by the tort of a mere servant or employee functioning in that character."⁸ The recognized rule now is that a charitable corporation is subject to the principle of *respondant superior* (the master is responsible for the wrongful acts of the servant) in case of injury to a patient occasioned by the negligence of ordinary employees not administering treatment.⁹

Another situation in which the hospital may be held liable is for the failure of a member of the medical personnel to perform an act which is purely administrative, even though it is not immediately connected with treatment.

One reported case is of a child who was taken to the hospital by the father for x-rays. The x-ray technician who was in charge of the x-ray room in the absence of the staff roentgenologist requested the father to assist her by holding the child on the x-ray table in a certain position. The technician also directed him to stand near the x-ray apparatus in order that he

⁶ *Dillon v. Rockaway Beach Hospital & Dispensary*, 284 N.Y. 176, 30 N.E. 2d 373.

⁷ *Phillips v. Buffalo General Hospital*, 239 N.Y. 188, 146 N.E. 199.

⁸ *Sheehan v. North Country Community Hospital*, 273 N.Y. 163, 7 N.E. (2d) 28.

⁹ *Goodman v. The Mount Sinai Hospital*, 32 N.Y.S. 2d 949, 263 App. Div. 958.

might so hold the child. While the picture was being taken the father was thrown by an electric charge, resulting in injuries to himself.

The court held that although the technician may have been doing an act directly involving the treatment of the patient, the jury could find that the technician in failing to summon nurses to assist her was doing an administrative act as a servant of the hospital. By requesting the aid of the father who was not a patient and instructing him where to stand, she was acting in a supervisory capacity.¹⁰

Even where the act involves medical treatment, the hospital can be charged with liability if there is an administrative act which simultaneously accompanies an act of medical care. While a patient was in a delivery room of a hospital in advanced labor and under the influence of a drug, she fell from her bed which was not equipped with sideboards. Whether it was within the scope of reasonable anticipation for the hospital through its servants to have guarded against the mishap which occurred, to the extent at least of furnishing a bed with sideboards, was a question of fact for the jury.

In this case "the negligence, as found by the jury, was of an administrative nature in that the servants of the defendant assigned to the plaintiff a particular bed and continued her in it up to the time of the accident."¹¹

A maternity patient while unconscious and delirious sustained burns at a hospital by reason of her body coming in contact with a hot radiator. The fiction that a nurse is not an employee of the hospital where liability is sought to be imposed on the institution for the nurse's acts does not apply to acts relating to the nurse's administrative duties. Acts performed or committed by a nurse are none the less admin-

istrative when they are not done at the behest or under the control of the physician.

The nurse can be regarded as an agent of the hospital corporation even though she is not an officer or a "managing" employee, for the test is whether the nurse is sufficiently representative of the corporation so as to qualify her to speak for the hospital on the matter at hand.¹²

Despite the fact that an accident may occur during the process of medical care, the hospital will be answerable in damages to the patient if the injury resulted from defective or other improper equipment. One case which brought a substantial verdict for the patient arose out of a defective asbestos pad used in a warming box for newborn infants.

After the birth of the child, the delivering physician placed the infant on a sheet and blanket, following which the circulating nurse put the child, bundled in a blanket, on top of the asbestos pad. About a half hour later it was observed that the child had a second degree burn of the left buttock and a third degree burn of the right buttock. Upon examination of the asbestos it was found to be broken and otherwise defective.

The hospital contended the equipment was of standard use in delivery rooms of hospitals which take care of confinement cases; that even though it might have been negligent it was not responsible for the acts of its doctors, nurses, and interns. However, said the court, this was a case in which the injury did not come about through the negligence of any such individuals.

¹⁰ *Rabasco v. New Rochelle Hospital Assn.*, 44 N.Y.S. 2d 293, 266 App. Div. 971.

¹¹ *Bickford v. Carson C. Peck Memorial Hospital*, 43 N.Y.S. (2d) 20, 266 App. Div. 875.

¹² *Misthal v. Israel Zion Hospital*, 45 N.Y.S. 2d 203.

"It came about because the hospital furnished a device for a certain use or purpose which device was defective and dangerous to be used for the purpose for which it was furnished. In furnishing the warming box in a defective condition the hospital incurred liability to the infant."¹³

In another instance, an action was brought to recover damages for personal injuries suffered by a patient who fell from an examination table and sustained a fractured arm and other injuries. The table, which was two and one-half to three feet wide and six feet long, was in the emergency room of the hospital and had no sides to it. In consequence of the patient being left there unattended by the nurse in charge of the emergency room, the patient rolled off the table.

At the trial the court charged the jury that the hospital was liable because it knew of the patient's mental status and failed to provide a table with sides on it. The attorney for the hospital, however, failed to take exception to the judge's statement that the hospital could be charged with knowledge of the patient's mental condition and so could not raise that point on appeal. The judgment in favor of the patient was affirmed on appeal, although there should have been proof at the trial that the hospital was acquainted with the patient's mental status at the time she was left alone on a table without sideboards.¹⁴

Defective heating pads are a fruitful source of litigation. The fact that the pad was applied by a nurse would not relieve the hospital of liability if a defect in the pad was the cause of the injury, for the act of medical care in such case is combined with an act of administrative negligence in not providing suitable equipment.¹⁵

Nor is the status of the hospital as a charitable institution a defense when a stu-

dent or other person is injured by reason of defective equipment and the failure to furnish safeguards. If the professor in charge of the instruction using the equipment and safeguards is negligent, the institution is liable for not having the equipment in good condition, with the necessary safeguards.¹⁶

One of the officers of a charitable corporation who was also a member of its board of managers struck her head against the cross-beam of a grape arbor which had dropped lower than the other beams. This beam had been caused to become lower because a post supporting it had been eaten off at its base by termites.

About two days before the accident the superintendent had discovered the defective condition but did nothing about it. Liability was established against the corporation; the fact that the injured person was a member of the corporation and one of its vice presidents was no bar to the maintenance of the action, and a jury could properly say that the corporation's superintendent was negligent in failing to have the defective condition of the arbor repaired or in neglecting to notify such person of its existence. "The negligence of the superintendent is the negligence of the defendant."¹⁷

Due to insufficient lighting at the outer entrance of the hospital, a nurse was caused to be injured. The lighting facilities at the entrance were less than the usual

¹³ *Woodhouse v. Knickerbocker Hospital*, 39 N.Y.S. 2d 671, *affd.* 43 N.Y.S. 2d 518.

¹⁴ *Petry, admx. of Fannie E. Moyer, dec'd, etc.*, App. Div. Second Department, *N.Y. Law Journal*, May 16, 1944, p. 1901.

¹⁵ *Gardner v. N.Y. Medical College Flower Hospital*, Supreme Court, Westchester County, *N.Y. Law Journal*, March 23, 1944, p. 1147.

¹⁶ *Weltman v. New York University*, 35 N.Y.S. 2d 892, 264 App. Div. 907.

¹⁷ *Stearns v. Schenectady Day Nursery*, 262 App. Div. 638, 31 N.Y.S. 2d 277, *affd.* 288 N.Y. 574, 42 N.E. 2d 24.

lights in use because of wartime dimout regulations. In this case the hospital was discharged of any liability because it was complying with proper government regulations in the matter of lighting.¹⁸

These decisions represent cases adjudicated for the most part during the past five years. The trend definitely is to narrow the old rule of immunity of charitable hospital corporations to the point where

the doctrine is gradually becoming obsolete.

The test no longer is: Was the patient injured in the course of medical treatment, but was there some element present on the basis of which liability can be attached to the hospital?

¹⁸ *Fellman v. Lebanon Hospital Ass'n of City of New York, Inc.*, 44 N.Y.S. 2d 352, 180 Misc. 838.

2. The Legal Basis of Tax Exemption, by *Emanuel Hayt**

THERE are people in the hospital field who believe that tax exemption is based solely on the amount of charitable work which a hospital performs.

Nonprofit hospitals do furnish a great deal of free service, even though many have no endowment funds and receive little community support; the free care is provided generally through payments from the local government or income from paying patients.

Small localities without government hospitals must often depend on the facilities of voluntary hospitals. Even in the larger cities the available beds of general hospitals maintained by local governments are frequently insufficient. Tax funds are therefore used by local governments to pay voluntary hospitals for the care of the needy. It is the unanimous opinion of the trustees of the American Hospital Association that such payment to hospitals should be on the basis of service actually rendered, and that payment in a lump sum or subsidy is undesirable.¹

Some hospital administrators and trustees are concerned that the increased use of public funds may affect the tax free status of voluntary hospitals. Would adequate payment for indigents, with consequent reduction in free service, actually endanger the exemption privileges of charitable institutions?

It has been said that to tax a nonprofit hospital is to place a direct tax on the sick and injured.² Tax exemptions are granted on the theory that charitable institutions carry out functions which the government itself otherwise would have to perform. Without exemptions, the money taken from public charities would have to be paid out immediately by the government for the very purposes being served by such agencies.³ "To foster the hospital by provision for its aid and at the same time to burden it by taxation is inconsistent with the legislative purpose."⁴

In a sense, tax exemption is a subsidy from the government to agencies which render services affecting the health and welfare of the community.

Organizations founded for religious, charitable, scientific, literary, or educational purposes, whose income does not inure to the benefit of any private shareholder or individual, have generally been relieved from the tax on corporations.⁵

* Adapted from *Hospitals* 19:25-29, Jan. 1945.

¹ Hospital care for the needy; relations between public authorities and hospitals, *Hospitals* 12:17-24, Aug. 1938.

² California hospitals are not taxable, *Superior Court rules, Mod. Hosp.* 60:126-128, Jan. 1943.

³ *Y.M.C.A. v. City of New York*, 251 App. Div. 821 (N.Y.).

⁴ *Woonsocket Hospital v. Quinn*, 54 R.I. 424.

⁵ U.S. Internal Revenue Code, sec. 101-(6).

Such organizations may include community chests and funds which exist for purposes other than the relief of the poor and needy.⁶

A public charity need have no special reference to the poor.⁷ Charity, in its legal sense, extends to the poor as well as to the rich; a person who is sick, injured, or afflicted, or in a helpless condition, is a proper object to be included in the purpose of a public charity whether he is poor or not.⁸

To be regarded as charitable, a hospital must open its doors without discrimination to all who seek its aid; its services must be placed "at the call of the afflicted, without scrutiny of the character or the worth of those who appeal to it, looking at nothing and caring for nothing beyond the fact of their affliction."⁹

If the general public may be excluded at the discretion of the administration the hospital is not entitled to exemption from taxation as a purely public charity.¹⁰ That control of the institution is in the hands of a particular sect or denomination does not affect its exemption if its benefits are open to the public at large.¹¹ Charity patients must be received without regard to race, creed, or color, and the mere fact that pay patients predominate over free cases does not disqualify the institution as a purely public charity.¹²

These principles are demonstrated in a recent California case. The Scripps Memorial Hospital, Inc., brought an action to recover taxes which it had paid under protest, claiming that it was exempt from such payments under the California Unemployment Insurance Act.

In 1924 the institution was organized as a nonprofit corporation, and conducted a hospital, metabolic clinic, and dietetic school at La Jolla. Its land, building, and equipment cost some \$800,000; it had an

endowment of about \$800,000 acquired through gifts. All funds were donated solely for charitable, scientific, and educational purposes, without any beneficial interests in any of the members, officers, or directors of the corporation.

It was shown that the hospital was founded for the treatment of persons regardless of race, color, or creed and had carried out such objects; that all were accepted irrespective of their ability to pay; that no individuals profited personally from its income; that contributions and endowment funds constituted its income; that it made a full charge where a patient had the ability to pay and a lesser charge to those who could not afford the full rate. Approximately 25 per cent of the services rendered were without compensation, and all income was used for the operation and maintenance of the hospital.

The California Employment Commission contended that the hospital was not entitled to exemption because only a small part of its services was given free to indigents. Exemption was demanded by the hospital as "a corporation . . . organized and operated exclusively for . . . charitable . . . purposes . . . no part of the net earnings of which inures to the benefit of any private shareholder or individual."

Defining the phrase "operated exclusively for . . . charitable . . . purposes,"

⁶ *Scripps Memorial Hospital, Inc. v. California Employment Commission*, 151 P. (2d) 109 (Calif.).

⁷ *Matter of MacDowell*, 217 N.Y. 454.

⁸ *The Nuns of the Third Order of St. Dominic v. Younkin*, 118 Kan. 554, 235 P. 869.

⁹ *Schloendorff v. The Society of the New York Hospital*, 211 N.Y. 125, N.E. 92.

¹⁰ *Delaware County v. Sisters of St. Francis*, 2 Del. 149.

¹¹ *The Nuns of the Third Order of St. Dominic v. Younkin*, 118 Kan. 554, 235 P. 869.

¹² *San Antonio v. Santa Rosa Infirmary*, 259 S.W. 926 (Tex.).

the court declared an institution such as a hospital, in order to come within the meaning of the phrase, must be one which is open to all persons irrespective of race, color, creed, or ability to pay, and must be one where no individual or entity may benefit from its assets on dissolution.

That the services of the hospital yield some profit, said the court, is negligible if financial gain is not the purpose of the service; that fees are charged by a hospital is not controlling if these go to pay the expenses of operation and not to the profit of the founders or shareholders. "The exact percentage of free service rendered is immaterial."¹³

This matter was considered together with the case of *Seaside Memorial Hospital v. California Employment Commission*, as both actions involved the same questions. In both lower and appellate courts the two hospitals were adjudged charitable corporations which did not have to pay unemployment insurance taxes.¹⁴

To say that the test of a charitable hospital is the amount of free service rendered is to apply a standard which is impractical and unsound.¹⁵ Exemption was ordered in one case, for example, where the proportion of pay patients to charity cases was estimated at approximately 95 per cent pay to 5 per cent free.¹⁶ It has been ruled, in fact, that a hospital is not deprived of its charitable status even if none of its patients is treated without charge.¹⁷

In a recent proceeding it was determined that free service to the poor is not a prerequisite to tax exemption and that the legal meaning of charitable purpose is not limited to the care of the indigent.

"Hospitals which are devoted to the care of the sick and injured, which aid in maintaining public health and which make valuable contributions to the advancement

of medical science are rightly regarded as benevolent and charitable. A hospital association not conducted for profit which devotes all of its funds exclusively to the maintenance of the institution is a public charity and this is so irrespective of whether patients are required to pay for the service rendered."

This case involved the Doctors' Hospital organized in New York City in 1927 as a charitable corporation. Although it had been incorporated as an eleemosynary institution, the original purpose of the founders was to make a profit. A real estate company had been formed to sell stock which would entitle its holders to dividends. The owning company bought the necessary land, erected, and equipped the hospital buildings. By agreement with the owning company the hospital corporation was to pay the taxes, maintenance charges, and an annual rental.

From the beginning the hospital was in financial difficulties. A plan of reorganization was evolved whereby the owning company sold the property to the hospital corporation which assumed all outstanding obligations. The shareholders surrendered their stocks and the creditors reduced their claims drastically.

After August 1, 1932, the hospital was conducted without pecuniary profit to anyone connected with it. It operated with a medical board of 200 physicians; its bed capacity was 275. From 1933 to 1938 it treated 18,428 patients who spent a total of 242,978 patient days. Free service

¹³ *Scripps Memorial Hospital, Inc. v. California Employment Commission*, 151 P. (2d) 109 (Calif.).

¹⁴ 151 P. (2d) 116 (Calif.).

¹⁵ *Southern Methodist Hospital v. Wilson*, 57 Ariz. 424, 77 P. (2d) 458.

¹⁶ *Lutheran Hospital Assn. v. Baker*, 40 S.D. 226, 167 N.W. 148.

¹⁷ *Brattleboro Retreat v. Brattleboro*, 106 Vt. 228.

for the needy was inaugurated in 1935 for a limited number of patients.

Application was made for tax exemption of the hospital realty for the years 1932 to 1939. The statute under which the hospital sought exemption provided that the real property of a corporation organized exclusively for charitable, benevolent, hospital purposes or for two or more such purposes, and used exclusively for one or more of such objects, was relieved of taxation.

The New York City tax commissioner denied the petitions on the ground that the hospital had failed to extend adequate free care to the public and that it gave public charity only to specified patients of selected doctors, merely as a pretext for real free service.

Testimony was taken at hearings before a referee, who recommended that tax exemption be disapproved; he held that the value of the free work done must have some relation to the amount of taxes that are exempted and that charitable service must be for the benefit of the general public.

His opinion was accepted by the lower court, which added that there was no real public service performed because it was rendered for a select few. The doctors who either managed the hospital or the few additional physicians who came from the courtesy list of the hospital were the only ones who were the recipients of any charitable effort on behalf of this hospital for those who might be unable to pay.¹⁸

On appeal, however, the higher court reversed this ruling and granted exemption, holding that the statute did not make any requirement of free service to the indigent as a condition to exemption. "If it were the intention of the Legislature to require hospitals to furnish free service to the needy as a condition precedent to tax

exemption, appropriate language to that effect could readily have been employed."¹⁹

In most jurisdictions the test of a charitable hospital is not the extent of the free services performed or whether patients pay more or less for the care, but whether those who operate it are conducting it for private profit, directly or indirectly.²⁰

A hospital was organized for profit, no patient being admitted except at the request of one of the staff who was interested as a shareholder. Full rates were charged patients for board, lodging, maintenance, attendance, and nursing care; the doctor submitted his bill in addition.

In the course of time taxes must have become burdensome; it was decided to reorganize the corporation as a nonprofit association. Property of the old corporation was conveyed to the new one, which then gave a mortgage to a bank as trustee for the former bondholders. Amortization of the mortgage was to be completed in eleven years. None of the stockholders contributed any money to the hospital toward endowment or building fund or running expenses.

Tax exemption was refused by the court, which held that incorporation under the nonpecuniary profit act is not conclusive proof that the corporation is exempt from taxation, but the facts of the case determine the character of the corporation. The court said, further, that the two free beds were maintained for the personal privilege of interested physicians and not as a benefit available to the general public; that the holders of the mortgage certificates on

¹⁸ *People ex rel. Doctors' Hospital, Inc. v. Sexton et al.*, Supreme Court, N.Y. County, Special Term, Part VII, McLaughlin, J., *N.Y. Law Journal*, Nov. 28, 1941, p. 1708.

¹⁹ *People ex rel. Doctors' Hospital, Inc. v. Sexton et al.*, 48 N.Y.S. 2d 201, 267 App. Div. 716 (N.Y.).

²⁰ *Barnes v. Providence Sanitarium*, 229 W.S. 588 (Tex.).

which interest was paid were these same persons. They had failed to show that the hospital was not conducted for profit. This was considered to be a private hospital association.²¹

Whatever the hospital receives from paying patients is regarded merely as a contribution toward the maintenance of the charity,²² whether the money comes from those able to pay wholly or only partly for the accommodations which they receive.²³

When there is excess of income over expenditures no "profit" is created, because the surplus cannot be distributed to any private individual; the money can be spent for maintenance, replacement, improvements or better hospital service. The nonprofit principle does not mean that every item of service rendered must be at or below cost, but that the difference in the amount charged, if above actual cost, must be applied solely to the furtherance of the charity.

Hospitals are entitled to charge at least cost for their services.²⁴ On the other hand, the hospital whose operating expenses are greater than its income from all sources must appeal to the public for more funds or ultimately reduce its service.

A public charity cannot be evaluated by the amount of money it loses in its operations, but by the extent of the good it does for the public. The "profit" of the voluntary hospital is the gain of the community it serves.

Another recent case holds that the use of the income is more important than its source. A hospital was organized with no express provision in its charter that it was exclusively charitable; two and one-half years later the charter was amended to provide that all net profits were to be devoted entirely to indigents. No dividend was ever declared, nor payment made to any stockholder. Income was derived from

full-pay and part-pay patients as well as rentals from a clinic. Such income, declared the court in upholding the hospital's exemption, was purely incidental and apparently necessary to the pursuit of the charitable purposes for which it was formed.²⁵

It has been deemed proper for a hospital to charge patients a sufficiently high rate to leave "a very respectable margin of profit," provided no part of it goes to any private individual or group. In that case two former employees of a hospital sought to recover unemployment benefits as provided in the Unemployment Compensation Act of the State of Washington. They contended that the hospital was an "employer" under the act and not excluded therefrom as a charitable corporation.

In the same building in which the hospital was operated there was the Mason Clinic, a copartnership for profit, conducted by physicians on the ground floor. Laboratory and x-ray facilities of the clinic were available for the use of the hospital patients. The fees were paid by the patient to the hospital, which in turn reimbursed the clinic at a considerably lower rate than that received from the patient.

There was also an exchange of personnel, student nurses taking training both at the clinic and the hospital. The same interns were used by both groups and the same manager supervised both the hospital and the clinic. Affairs of the hospital and

²¹ Fairmount Hospital v. State Board of Tax Appeal, 8 A. (2d) 373, 123 N.J.L. 201, affirming 4A. (2d) 67, 122 N.J.L. 8.

²² Schloendorff v. The Society of the New York Hospital, 211 N.Y. 125, 105 N.E. 92.

²³ McDonald v. Massachusetts General Hospital, 120 Mass. 432, 21 Am. Rep. 529.

²⁴ Goldwater v. Citizens Casualty Company of New York, 7 N.Y.S. (2d) 242, affirmed 36 N.Y.S. (2) 413.

²⁵ The Goldsby King Memorial Hospital v. Commissioners of Internal Revenue, U.S. Tax Court, Docket No. 24, entered July 19, 1944.

the clinic were kept separate; all use made of equipment and space was promptly paid for upon a schedule of charges which appeared reasonable.

The court held that the hospital was so operated that no part of the net earnings resulted in advantage to any private persons and it was therefore exempt from unemployment insurance taxes. In arriving at this conclusion, the court said:

"Where a clinic is operated for private profit in conjunction with a purported charitable hospital, in such manner that the hospital receives full consideration from the clinic for the goods and services with which the hospital supplies the clinic, and where the hospital pays the clinic only reasonable and usual prices for the services supplied by the latter, the hospital cannot be treated as an institution operated for the private benefit of the clinic. Certainly the net earnings of such a hospital do not inure to the benefit of the clinic."²⁶

Charity to needy patients is not, and need not be, the sole purpose of a hospital.²⁷ Nor does the modern hospital confine itself to the care of the sick alone. It aids in the education of physicians and nurses, community organizations, and the public, and in investigating the cause and cure for disease and methods of prevention.²⁸

When a hospital performs these functions, it becomes a public charity in its broadest sense; it measures up to the legal conception of a charity or a benevolence, defined as "any gift not inconsistent with existing laws, which is promotive of science, or tends to the education, enlightenment, benefit, or amelioration of the condition of mankind, or the diffusion of useful knowledge, or is for the public convenience."²⁹

Without free cases a hospital's ability to do research or educational work is ham-

pered; it cannot do effective clinical and laboratory research; its medical staff would be restricted in its training through ward rounds, staff meetings, pathology conferences and clinical demonstrations. The need for such research assures free service.³⁰

Whether an enterprise is charitable or otherwise is determined by its purpose. Its object must be to heal the sick and relieve the suffering, without hope or expectation of profit.³¹ On the other hand, the mere fact that it does everything that a public charity would do does not make the hospital a purely public charity,³² for not only must the hospital administer charity, but it must have been organized for that purpose.³³

It is also possible for a public charity to be considered such under state law and yet be held otherwise by the federal courts. For example, a hospital service corporation was held taxable under federal law despite the fact that it was organized exclusively for charitable purposes and exempt under the laws of the state in which it was incorporated.

Suit was instituted by the Associated Hospital Service Corporation of Massachusetts against an acting collector of internal revenue to recover taxes claimed to have been paid illegally under Title VIII of the Social Security Act of 1935, on the

²⁶ *Virginia Mason Hospital Assn. v. Larson*, 9 Wash. (2d) 284, 114 P. (2d) 976.

²⁷ *In re Burnham's Estate*, 112 Misc. 560, 183 N.Y.S. 539.

²⁸ *By-Laws of the American Hospital Association*, art. II.

²⁹ *Gossett v. Swinney*, 53 F. (2d) 772, 286 U.S. 545.

³⁰ *Arnold F. Emch*, Tax exemption of voluntary hospitals, *Hospitals* 14:71-75, Apr. 1940.

³¹ *Union Pacific Ry. Co. v. Artist*, 60 F. 365 (C.C.A. 8th, 1894).

³² *Bistline v. Bassett*, 272 P. 696 (Idaho).

³³ *People ex rel. Thompson v. Ravenswood Hospital*, 238 Ill. 137.

ground that it was exempt from the act because it was "a corporation . . . organized and operated exclusively for . . . charitable . . . purposes . . . no part of the net earnings of which inures to the benefit of any private shareholder or individual."

By a two to one decision, the court held the hospital service corporation taxable, although exempt under Massachusetts law. The corporation, said the court, was being conducted more on a business basis than a charitable basis; that "the subscribers consider themselves neither charitable donors nor the recipients of charity. The corporation capital is not composed of charitable contributions but of fees exacted from subscribers. Without the subscription payments the corporation could not function. Membership is not limited to the needy but as a matter of fact is composed largely of middle class and well to do. It is difficult to distinguish the plaintiff corporation from a mutual insurance company or an employee benefit plan. Here we have what is essentially a business arrangement under which a group of people have banded themselves together to purchase at rates as low as possible hospital care in the event of sickness or accident. These rates are subject to approval by the Massachusetts Commissioner of Insurance. Such a corporation is not charitable."

Comparing the hospital service corporation with accepted charitable organizations, the court indicated that the latter did not require a fee in every case and that the fee paid ordinarily bore no precise relation to the cost of the benefit conferred.³⁴

A few states, contrary to the general rule, require either a specific amount of charitable work or limit the amount of property or income which is exempt from taxation.

In the state of Alabama real estate up

to five acres owned by the hospital is exempt, provided at least 15 per cent of its business is for the benefit of charity patients.³⁵

Massachusetts provides that hospital property used for insane persons or mental cases is not exempt unless one-fourth of the property and one-fourth of the income of its trust or other funds are devoted to charity patients.³⁶

In Mississippi, which exempts real or personal property if one or more charity wards are set aside for free cases,³⁷ the Rush Hospital Association, formerly owned by a Mrs. Rush who operated it under the name of Rush's Infirmary, was incorporated as a charity.

The charter provided for the operation of a modern, fully-equipped hospital and a training school for nurses. One or more charity wards were to be maintained at all times; all income or profit from the hospital or nurses' home was to be applied solely to hospital purposes.

Mrs. Rush's two sons, both physicians, maintained offices in the hospital, and also a clinic and operating room for both pay and charity patients. Two rooms were set apart for charity patients, each containing two beds, one room for the white race, and one for the colored. Charity patients were given the identical treatment, care, nourishment, and other service as was furnished to the pay patients.

Equipment of the hospital was used for both charity and pay patients. No charge was made to the Drs. Rush for their private offices and they were each paid a salary of \$2,500 out of the hospital funds

³⁴ Hassett v. Associated Hospital Service Corporation, 125 F. (2d) 611, (C.C.A. 1st, 1942).

³⁵ Ala. Const., secs. 91, 217; Ala. Code, sec. 3022 (1), (2).

³⁶ Massachusetts General Hospital v. Belmont, 233 Mass. 190; Mass. Gen. Laws, c.59, sec. 3; sec. 3 (a); c.59, sec. 3(c); sec. 3(d); c.58, sec. 17(a).

³⁷ Miss. Code Ann., sec. 3108 (f).

for their services in treating the charity patients, instructing the undergraduate nurses and training them, and for various other managerial services. Mrs. Rush was paid \$150 per month as superintendent of nurses and as dietitian. Other employees were also paid salaries.

At the end of the year the hospital had a deficit of about \$250. It applied to the board of supervisors for exemption from taxes, but the application was disapproved. The court, on appeal, however, held that the hospital had complied with the law in assigning the rooms for charity patients; that such persons received adequate treatment and care. The charges and expenses connected with the management of the hospital were reasonable; the hospital came within the requirements of the act entitling it to exemption; the public received a benefit equivalent to the exemption from taxation.³⁸

Another state which places a restriction on exemption is New Hampshire. A voluntary corporation can hold property only to the amount of \$500,000 and such property is exempt only up to the limit of \$150,000. All income used for hospital purposes is exempt.³⁹

CONCLUSION

Except in a few states, there is no legal requirement for a specific amount of free care as a condition to tax exemption. It has been held by the courts that county payments for services rendered to indigents who are a

county charge do not affect the charitable character of the institution.⁴⁰

Hospitals discharge, at least in part, a function which ordinarily devolves upon the government.⁴¹ Adequate payments from governmental units for the care of indigent patients increase the capacity of the hospital to fulfill its functions as an agency for the care of the sick, education of personnel, research, and preventive medicine.⁴² It would seem unreasonable to anticipate that government would stifle voluntary hospitals by withdrawing tax exemption.

To effect changes in tax exemption laws would require acts of the state legislatures or constitutional amendments by the voters, rather than the decision of an administrative officer in a local government unit or the ruling of a court of law. As long as the voluntary hospitals unselfishly serve the health of our citizens, there is little likelihood that the people or their representatives in the legislatures will revoke the traditional privilege of tax immunity now enjoyed by public charities throughout the country.

³⁸ Rush Hospital Benev. Assn. v. Board of Sup'rs of Lauderdale County, 192 So. 829 (Miss.).

³⁹ N.H. Pub. Laws, c.60, sec. 22; sec. 23; c.65, sec. 7.

⁴⁰ The Nuns of the Third Order of St. Dominic v. Younkin, 118 Kan. 554, 235 P. 869.

⁴¹ Jewish Hospital of Brooklyn v. "John Doe," 252 App. Div. 581 (N.Y.).

⁴² A Statement of the American Hospital Association in regard to hospital care, *Hospitals*, Nov. 1944, p. 34.

3. Nonprofit Hospitals Are Exempt from Medical Practice Acts; Medicine Is Practiced *in* and Not *by* Hospitals, by Joe R. Clemmons, M.D., and Emanuel Hayt*

To FULFILL its function a hospital must be so organized that the services of radiologists, pathologists, anesthetists, and other specialists, furnished by the hospital with the equipment and facilities necessary to their work are available to assist the at-

tending physician in diagnosing and treating his patient.

"The fact that these specialists, that is, the radiologist, the pathologist, the anes-

* Adapted from *Hospitals* 20:72, 74, 76, 78, 80, 82, Sept. 1946.

thetist, the physical therapist, and other medically trained workers, have entered the hospital organization as part of the hospital to render essential services to the physician for his patient and that they are frequently compensated on a salary instead of a fee basis, is arousing the fears of some members of the medical profession lest this practice become so widespread as to constitute the much-talked-about and ill-defined 'corporate practice of medicine.'"¹

Some physicians contend that a hospital which employs a doctor on a salary or other stipulated compensation and charges and collects fees for his services is engaged in the illegal practice of medicine; further, that the laws applicable to profit corporations against the practice of medicine also apply to nonprofit hospitals.² Likewise, it is charged that if a hospital employs a director of roentgenology or a director of laboratory, including pathology, who is not a physician and charges for his service, and the revenue of this service is added to other hospital funds, it is practicing medicine.³

In rebuttal, one hospital administrator maintains that it is not unethical for a member of the medical profession to enter into a contract with a hospital to examine and treat patients for a fixed stipend or a fee, because physicians actually enter medical practice expecting to be paid for their services. Their arrangements with hospitals usually represent a mutually satisfactory method of payment. The same administrator denies that hospitals illegally practice medicine: he asserts that nonprofit hospitals have been confused with commercial corporations which may not engage in the practice of such professions as law, medicine, or dentistry.⁴

Another administrator says that when a physician sends his patients to a hospital

it is recognition of the fact that his own time, facilities, and skill are not sufficient to supply each individual patient with all the care which modern science has made available. The doctor seeks the cooperation of the hospital in order to increase the patient's chances of recovery, and much of this care must be rendered by employees of the hospital in their various capacities, often without the personal attendance of the attending physician. Pathological work and x-ray examinations are traditionally a part of complete hospital service, he states, and all reputable hospitals take pains to see that such departments are under the supervision of men competent in their respective fields and approved as such by their attending staffs.⁵

What legitimately constitutes hospitalization was determined in connection with the issuance of a charter to the Associated Hospital Service of Philadelphia pursuant to the Nonprofit Corporation Law of Pennsylvania.

Opponents of the hospital insurance plan argued that special services such as laboratory, electrocardiographic, x-ray, metabolism tests, anesthesia, and physical therapy may not be included within the scope of the insurance contract with subscribers. In holding that these six special services were "incident" to hospitalization and therefore a valid provision of the insurance agreement, the learned jurist passing on the application explained:

¹ What is hospital service? (editorial) *Hospitals* 12:79-81, Sept. 1938.

² C. H. Warfield, M.D., Relation of the radiologist to the hospital, from the standpoint of the radiologist, *Hospitals* 16:108-110, 112, 114, July 1942.

³ Charles Hugh Neilson, M.D., Medical practice by the hospital, *Hosp. Progr.* 25:193-195, July 1944.

⁴ Robert N. Brough, Objections overruled, *Mod. Hosp.* 62:51-52, May 1944.

⁵ F. Stanley Howe, Concerning "contract practice" in hospitals, *Hospitals* 19:37-38, June 1945.

"There is a marked distinction between the relation of the patient to his attending physician or surgeon and his relation to the radiologist, cardiologist, or other doctor performing the special medical services. In the first case, the patient chooses his attending physician or surgeon and there is a professional relation between them to the same extent as there is between attorney and client. The situation is entirely different as respects the doctors who perform these special medical services. The ordinary patient is not interested in the name or personality of the doctor who performs these special medical services; he merely assumes, and has the right to assume, that in every well-regulated hospital the doctors who perform these services will be men of the highest capacity and skill in the respective branches."⁶

"None disputes," wrote the late Dr. Sigismund S. Goldwater, "that the actual work of diagnosis, treatment, operating and prescribing is a personal act performed by physicians appointed or employed by the hospital. When the courts use the words 'the hospital practices medicine through another' it is recognition of the fact that the hospital or public dispensary is not itself engaged in medical practice as a corporation, but that its professional functions are performed by individuals skilled in the various specialties of the medical art. Whether or not a charge is made for professional services is not the essence of medical practice, any more than the question of whether the physician, roentgenologist or pathologist receives a salary from the hospital."⁷

It is common knowledge that in all the larger cities, and connected with most of the medical colleges in the country, hospitals are maintained by private corporations, incorporated for the purpose of furnishing medical and surgical treatment

to the sick and injured. These corporations do not practice medicine, but they receive patients and employ physicians and surgeons to give them treatment.⁸ Thus, it has been held in Nebraska that "a hospital which is controlled by a corporation and which receives patients, and contracts to care for them and to furnish them with medical attendance, does not by so doing practice medicine within the meaning of the act."⁹

However, there is a fundamental distinction between corporations organized for profit, which control the choice of physicians, and hospital, fraternal, religious, labor, and similar benevolent organizations furnishing medical services to members. In nearly all of the latter group, the medical services are rendered to a limited and particular group as a result of cooperative fraternal association, or as a result of employment by some corporation which has an interest in the health of its employees; the public is not solicited to purchase the medical services of a panel of doctors; the doctors are not employed to make profits for stockholders. In almost every case involving the latter group the institution is organized as a nonprofit corporation or association.

Such activities of nonprofit organizations are not comparable to those of private corporations operated for profit, where the principal evils of corporate practice of medicine spring from the conflict between the professional standards and obligations of the doctors and the profit motive of the corporation employer. "It may

⁶ In re The Associated Hospital Service of Philadelphia, Common Pleas, No. 7, March Term, 1938, No. 3470.

⁷ S. S. Goldwater, M.D., Medical practice and hospitalization, *Hospitals* 12:11-16, July 1938.

⁸ State ex rel. Sager v. Lewin, 128 Mo. App. 149, 106 S.W. 581.

⁹ State Electro-Medical Institute v. Platner, 74 Neb. 23, 103 N.W. 1079.

well be concluded," stated the California court, "that the objections of policy do not apply to nonprofit institutions."¹⁰

It is the exemption of charitable or nonprofit hospitals from the prohibition that no one except a licensed physician may practice medicine, holds a Virginia case, which permits them to render a special service to the sick, weak, and infirm. This work cannot be done merely by furnishing suitable rooms and food to the patient, but must include the trained care of nurses and medical attention from qualified persons.

Even in the case of nonprofit hospital corporations, the courts have not conferred the right to practice medicine upon unqualified persons treating patients in such hospitals. The principle observed is that the practitioners may function on behalf of a corporation if the corporation does not stand to profit by their services but that they must be qualified.

Obviously, the object of a hospital, as well as the reason for its establishment, is to render medical treatment and nursing of a skilled character; it is the facility for affording the patient a higher degree of nursing and medical attention than would be ordinarily possible outside a hospital which makes it desirable. Indeed, the opportunity to render such service enables a hospital to make a higher charge than a hotel or boarding house.¹¹

In addition to maintenance and nursing care, it is a well-known fact that such hospitals provide a multitude of other services such as x-rays, laboratory tests, physical therapy, medicines, the use of their facilities, and medical and surgical treatment.¹²

Some courts, however, have drawn a distinction between corporations practicing medicine and those merely furnishing medical services. But, speaking generally,

where a corporation operates a clinic or hospital, employs licensed physicians and surgeons to treat patients, and itself receives the fees for their services, it is unlawfully engaged in the practice of medicine. One purpose of this rule is to prevent the practice of medicine from being commercialized or exploited. The relationship of doctor and patient, well recognized in the law, would be destroyed under such circumstances.

"But in all the cases we have examined in which the practice has been condemned, the profit object of the offending corporation has been shown to be its main purpose," said the Federal Court in the case of *United States v. American Medical Association*. The same court pointed out that the prohibition against furnishing medical care or rendering treatment does not apply to a nonprofit organization which is conducted so that the proper doctor and patient relationship is preserved, and in which there is no interference with the doctor's loyalty to his patient that would either commercialize medicine in a way contrary to the best interests of patient or practice, or subject the physician to the corporation's control and make his practice a corporate act, for in this respect it differs from the medicine-practicing corporations which in many states have been held to be illegal.¹³

In a nonprofit or charitable hospital corporation the profit motive cannot be its principal object, because these institutions are operated by corporations no part of the net earnings of which may inure to the

¹⁰ *People v. Pacific Health Corp.*, 12 Cal. 2d 159, 82 P. 2d 429 (Cal.).

¹¹ *Stuart Circle Hospital Corp. v. Curry*, 3 S.E. 2d 153 (Va.).

¹² *Goldwater v. Citizens Casualty Company of New York*, 7 N.Y.S. 2d 242, aff'd 36 N.Y.S. 2d 413.

¹³ *United States v. American Medical Association*, 110 F. 2d 703.

benefit of any private shareholder or individual. Whatever the hospital receives from paying patients is regarded merely as a contribution toward the maintenance of the charity, whether the money comes from those able to pay wholly or only partly for the accommodations or services which they are given. That the services of the hospital yield some profit is negligible if financial gain is not the purpose of the service and no profit goes to the founders or stockholders.¹⁴

The Court of Appeals of New York State has held that "a hospital duly incorporated under the Membership Corporations Law unquestionably holds itself out as being able to diagnose, treat, operate and prescribe for human disease, pain, injury, deformity or physical condition; and such corporations do in fact offer and undertake publicly and frequently through the agency of advertisements to diagnose, treat, operate and prescribe for such diseases. An institution of this character possessing legislative authority to practice medicine by means of its staff of registered physicians and surgeons, comes under the direct sanction of the law in so doing. . . ."¹⁵

To the query as to whether a charitable hospital corporation may charge a ward patient for surgical services performed by its medical staff, one of the courts replied: "The fact that part of said bill is for services rendered by one or more physicians in the hospital does not preclude recovery thereof by the plaintiff."¹⁶

In the Hospital Lien Law of New York, it is provided that charitable hospitals have a lien upon the claim of hospitalized patients injured in accidents. The lien so granted has been held to include the cost of any professional services such as those of resident physicians for which the hospital is under a direct obligation to pay.¹⁷

These institutions are to be distinguished from proprietary hospitals which are organized as business enterprises, where all patients are required to pay for their accommodations and the services of the hospital, and no free work is done.

For-profit hospitals of this character offer their facilities for the use of physicians who bring their patients there. Institutions of this type are relegated to the role of a specialized hotel where the sick or infirm in body or mind may be treated by physicians of their own selection who are expressly or impliedly employed by them; and such corporations or hospitals in New York State may not recover for medical or surgical services, and are forbidden to engage in the practice of medicine.¹⁸

There are two states, Missouri and Nebraska, which make no distinction between commercial and nonprofit corporations, so long as the services are rendered by registered physicians and the charter provides for the rendition of medical care.

In Missouri, a corporation was organized as the Lewin Hernia Cure Company; its charter provided for "furnishing treatment for hernia and medical and surgical treatment for all other diseases, accidents and deformities." Dr. Lewin, who owned 98 per cent of the stock, was employed by the corporation as general manager and as a physician to treat patients who contracted with the corporation for treatment of hernia or other diseases.

¹⁴ Emanuel Hayt, The legal basis of tax exemption, *Hospitals* 19:25-29, Jan. 1945.

¹⁵ *People v. Woodbury Dermatological Institute*, 192 N.Y. 454, 85 N.E. 691.

¹⁶ *Hughes v. Nelson*, 178 Misc. 456, 36 N.Y.S. 2d 409.

¹⁷ *Roosevelt Hospital v. Loewy*, 55 N.Y.S. 2d 414.

¹⁸ *Goldwater v. Citizens Casualty Company of New York*, 7 N.Y.S. 2d 242, aff'd 36 N.Y.S. 2d 413.

When the company was accused of practicing medicine illegally, it alleged in defense that its purpose was to contract with persons to provide medical treatment through licensed physicians in its employ; that, in the main, it was doing what hospitals do every day, that is, contracting with physicians to furnish treatment.

This contention of the corporation was sustained by the court on the ground that the charter authorized the company to "furnish" medical treatment and not to practice medicine.¹⁹

The state of Nebraska attempted to prevent a corporation known as the State Electro-Medical Institute from engaging in practicing medicine for hire. The corporation admitted that it solicited the public to come for treatment for physical diseases by licensed physicians in its employ.

Dismissing the charge of illegal practice of medicine, the court stated: "It seems clear that the defendant has not practiced or attempted to practice medicine within the meaning of the statute. . . . It is impossible to conceive of an impersonal entity 'judging the nature, character, and symptoms of the disease' or 'determining the proper remedy,' or giving or prescribing the application of the remedy to the disease. Members of the corporation, or persons in its employ, might do these things, but the corporation itself is incapable to do them."²⁰

The same corporation sued a patient for breach of contract, alleging it made a contract in writing with him whereby it undertook to render professional services to him until he was cured of a certain disease, for which care the patient agreed to pay a stipulated sum. The patient refused to make payment on the ground that the contract of the corporation was for medical services which it was incapable of rendering; that such a contract made by a cor-

poration, to be performed by a licensed physician, is void.

Validity of the contract was upheld by the court, which pointed out that the corporation did not practice medicine by making a contract for such service and collecting a fee: it is necessary only that the one who actually performs the surgical operation or administers the remedy be qualified and licensed under the statute.²¹

The right of an individual to contract with a physician for medical services for a stipulated period at fixed compensation has never been challenged. By analogy a group of individuals may make a similar arrangement with a group of physicians. Such a group of persons may also incorporate themselves for their own mutual benefit for the same purpose.

A corporation in the District of Columbia, not for profit, of this character, for the mutual benefit of its members, limited to certain employees of the government, was formed. The corporation was not in the business of making money by furnishing services to anyone who may come along. No profit was to be made for itself or its members. Such a corporation does not practice medicine nor hold itself out as doing so.²²

It has been held to be proper in the state of California for a group of physicians to organize a corporation to contract with beneficiary members for treatment and to receive payment from the corporation.

The membership of the corporation consisted of administrative members comprised of physicians, professional members who are licensed physicians and surgeons,

¹⁹ State ex rel. Sager v. Lewin, 128 Mo. App. 149, 106 S.W. 581.

²⁰ State Electro-Medical Institute v. State, 74 Neb. 40, 103 N.W. 1078.

²¹ State Electro-Medical Institute v. Platner, 74 Neb. 23, 103 N.W. 1079.

²² Group Health Assn. v. Moor, 24 F. Supp. 445 (D.C.).

and beneficiary members who pay monthly dues entitling them to secure from any professional members necessary medical and surgical service.

Professional membership was open to all physicians who agreed to abide by the rules of the corporation that all compensation for services was to be paid upon a pro rata basis of the monthly funds collected from beneficiary members.

The insurance commissioner of the state of California alleged the activities of the corporation constituted the corporate practice of medicine and surgery, while, on the other hand, the corporation claimed its business and operations comprise the performance of a personal service by its professional members to its beneficiary members for which the corporation acts as the mediator or agency for the payment of compensation for such services.

Upon these facts the trial court decreed that "the rendition of medical and/or surgical services by plaintiff or by plaintiff's professional members does not constitute a violation of the principle that a corporation may not engage in or be licensed to practice one of the learned professions, to wit: law, medicine, dentistry, architecture, etc."²³

On the other hand, the attorney-general of New York State, in an opinion rendered on October 2, 1945, has held that if a contract entered into between a cooperative and a partnership composed of doctors, for the purpose of providing group medical services for the cooperative's members, involves fee splitting by or between the doctors, it is forbidden by law. He cited a statute, enacted in 1944, which provides for professional disciplinary action where a physician has directly or indirectly requested, received, or participated in the division or splitting of any fee for any type of medical, surgical, or dental care.

However, any arrangement which is limited to securing to each member of the group payment for services performed by him, after contributing a proportion of office expenses approximately equivalent to his use of office facilities, is permitted.

The specific case involved was that of a nonprofit cooperative corporation formed under the Insurance Law to furnish medical expense indemnity service to several thousand citizens of the state. It desired to contract on behalf of its members with doctors who would themselves finance the equipment and services involved.

No doubt exists as to the rule that a corporation organized for profit cannot engage in the practice of medicine, nor may it employ physicians to do so as its agents.²⁴

In February of 1929, the Barton Clinic, a corporation for profit, was incorporated to conduct and operate a general medical and surgical hospital and clinic and employ duly licensed physicians, surgeons, nurses, students, and other persons to carry on the business of said corporation. Its 750 shares of capital stock were held by duly licensed physicians and surgeons and by nurses and other employees of the corporation, and a small part by a lay person.

A contract was entered into by the clinic with Codington County, South Dakota, pursuant to which the corporation furnished medical and surgical services and medicines to the county indigent. All of the professional services involved were performed by duly licensed physicians and surgeons employed at fixed salaries by the corporation, and all charges therefor accrued to and were made by the corporation. The corporation owned all equipment used by the doctors and main-

²³ California Physicians' Service v. Garrison, 155 P. 2d 885 (Cal.).

²⁴ Woodson v. Scott & White Hospital, 186 S.W. 2d 141 (Tex.).

tained the supply of drugs furnished patients. It did not hold a license to practice medicine and surgery, nor to operate a pharmacy.

These contracts by a profit corporation functioning through duly licensed practitioners were held to be illegal. "Its trade commodity," said the court, "would be the professional services of its employees. Constant pressure would be exerted by the investor to promote such a volume of sales of that commodity as would produce an ever increasing return on his investment. The end result seems inevitable to us, viz., undue emphasis on mere money making, and commercial exploitation of professional services."²⁵

A commercial corporation is also forbidden in its own name to treat patients even though it is done on the advice of registered physicians. One Godfrey, it appears, organized a business corporation called the "Gatlin Institute of New York, Incorporated," for the cure of liquor or drug habit. A criminal action was instituted against him by the New York County Medical Society for violation of the medical practice act. The action against Godfrey, however, was dismissed, whereupon he sued the society for malicious prosecution, and was awarded \$2,500 in damages.

An appeal was taken by the medical society; the judgment was reversed on the ground that the society had probable cause for prosecuting him and that both the court which failed to convict Godfrey and the one which awarded damages to him were wrong in their theory of the law, since a "business corporation cannot administer in its own name medicine in treating disease or physical condition . . . even if it does so on the advice or prescription of a licensed physician in each individual case."²⁶

It is improper for a corporation for profit to make contracts with subscribers at fixed fees for services to be rendered by physicians in its employ. The United Medical Service of Chicago, for example, was chartered as a corporation for profit to operate a clinic with a fixed-fee, low-cost medical service to be rendered by physicians licensed in the state of Illinois. It advertised its services in the public press together with the charges for specific medical services and x-rays.

Persons receiving treatment entered into contracts with the corporation, which received the fees for such services and paid the physicians in its employ their remuneration. This corporation was held to be practicing medicine in violation of the medical practice act.²⁷

Similarly, it is the illegal practice of medicine for a medical expense corporation organized for profit to designate the physicians who may be selected by subscribers to treat them.

Under the general corporation law of California, the Pacific Health Corporation, Inc., was formed. Contracts were issued by the corporation to persons in good health, by the terms of which it undertook to pay for services rendered by physicians, hospitals, ambulance, and medical laboratories, for a specified premium. A list of physicians and surgeons approved by the corporation was kept by it; to obtain the benefits of the service the contract holders were required, save as to emergency expenses not exceeding \$50, to accept a doctor from such list.

It was conceded that the corporation

²⁵ Barton v. Codington County, 2 N.W. 2d 337 (S.D.).

²⁶ Godfrey v. Medical Society of New York County, 177 App. Div. 684, 164 N.Y.S. 846.

²⁷ People of the State of Illinois by Otto Kerner v. United Medical Service, Inc., 362 Ill. 442, 200 N.E. 157, 103 A.L.R. 1229.

was operated for profit; that it solicited contracts and paid commissions to its agents; that the income was invested, except that charges for medical services were paid out of the general fund and income from investments. It was argued, nevertheless, that the corporation itself did not undertake to perform medical services, but merely to furnish competent physicians who were not employees of the corporation, on a salary basis, but were independent contractors compensated for actual services after they were rendered.

The court disagreed with this view, declaring: "The evils of divided loyalty and impaired confidence would seem to be equally present whether the doctor received benefits from the corporation in the form of a salary or fees. And freedom of choice is destroyed, and the elements of solicitation of medical business and lay control of the profession are present whenever the corporation seeks such business from the general public and turns it over to a special group of doctors."²⁸

Medical expense policies to indemnify subscribers issued by profit corporations are invalid if the professional men are designated by the corporation.

One such corporation in California undertook to provide medical and dental services to policyholders, through physicians and dentists appointed by its medical director. This contract was held to be invalid on the ground that it was basically an agreement by the corporation, in consideration of the premium paid by the insured, to furnish the designated professional services through it appointed staff, consisting of its medical director, its designated physicians, and its designated specialists. Such a policy is not an agreement to indemnify the policyholder against indebtedness incurred for such services with professional men of his own choosing, but

an agreement to furnish medical and other professional services through its own appointed staff of professional men.²⁹

Yet where patients seek to hold hospitals liable for the malpractice of their physicians, the courts universally hold that the hospital is not legally responsible because the corporation cannot practice medicine: the doctor is deemed an "independent contractor" who exercises his own judgment and personal skill.

The surviving wife and children of a patient brought an action for damages for his death alleged to have resulted from the negligence of a surgeon. It was claimed that the deceased suffered a rupture of a gastric ulcer of the stomach, due to delay in operating. Joined as defendants were the surgeon and the Todd-California Shipbuilding Corporation of California and Industrial Indemnity Exchange, the latter two being alleged to be the owners of the hospital.

There was nothing in the complaint, said the court, which showed that the corporation had contracted with the patient to furnish the professional services. Moreover, members of the learned professions have the status of independent contractors rather than the status of employees and therefore neither a corporation nor any unlicensed person may be held liable under the doctrine of *respondent superior* for the malpractice of such members. The complaint against the corporation operating the hospital was dismissed.³⁰

In another action in California, an ap-

²⁸ People of the State of California ex rel. State Board of Medical Examiners v. Pacific Health Corporation, Inc., 12 Cal. 2d 156, 82 P. 2d 429 (Cal.).

²⁹ Pacific Employers Ins. Co. v. Carpenter, 10 Cal. App. 2d 592, 52 P. 2d 992.

³⁰ Konnoff v. Fraser, 145 P. 2d 1368 (Cal. App.).

peal was taken by a patient from a ruling in favor of a hospital dismissing the complaint which indicated that the patient entered the hospital for an operation on the right kidney.

While the patient was under the care of the doctors, one of his ribs was broken, due, as he claimed, to the negligence of both the doctors and the hospital. The patient himself did not know exactly how the injury occurred: it was his contention that the mere fact he sustained a fractured rib was sufficient proof of negligence; that the hospital was careless because it failed to discover his broken rib.

Dismissal of the complaint was upheld because the facts alleged were insufficient to establish negligence on the part of the doctors; in connection with the charge against the hospital, the court noted that the hospital being a corporation was without authority to practice medicine. The discovery of a broken rib and the treatment thereof, after the discovery, would appear to be an act of practicing medicine.³¹

In an action against a private for-profit hospital for the alleged negligence of two of its physicians, the complaint stated that the hospital "held itself out to the public that it and its employees (the doctors) were qualified and competent to properly diagnose and treat sick and injured persons, and it agreed with said plaintiff, for a consideration, to properly diagnose and treat his injuries." This complaint, asserted the court, was based upon the theory that the corporation was engaged in practicing medicine and surgery, and that it contracted to diagnose and treat the patient's injury.

Such an allegation, the court ruled, fails to state a cause of action, for although it is held in some jurisdictions that corporations may legally engage in the practice

of medicine and surgery, in this state (Indiana) it is unlawful for a corporation to practice medicine, and any contract made in the name of the corporation, binding it to diagnose or treat ailments or diseases, is unlawful and against public policy. Since the corporation could not legally practice medicine, the patient was bound to know that whoever treated him was not acting for the corporation.³²

Adequate hospitalization must include the services of specialists, such as the radiologist, pathologist, physical therapist, and anesthetist, as well as laboratory and electrocardiographic services. The relationship between the patient and his attending physician or surgeon is personal; it is not necessarily so with those performing special services in the hospital.

Whether or not a charge is made for professional services by the hospital or the doctor is not the essence of medical practice. While a nonprofit hospital may not be licensed to practice medicine, it may render such services through its qualified personnel as is customary and necessary for the care of its patients. Ancillary services are a necessary part of hospitalization.

The primary obligation of the hospital is to provide and organize all the services necessary for the diagnosis, treatment, and rehabilitation of the patient. Provision of medical services in hospitals is part of the responsibility of the hospital, and is consistent with the rights, privileges and obligations of hospital staff physicians under their medical licensure.

The performance of diagnostic and therapeutic procedures by staff members constitutes the practice of medicine *in* hospitals. It is not the practice of medicine *by* hospitals. The employment of a physician

³¹ *Guilliams v. Hollywood Hospital*, 105 P. 2d 318 (Cal. App.).

³² *Iterman v. Baker*, 15 N.E. 2d 365 (Ind.).

by a hospital is consistent with law and with professional ethics and does not imply that the hospital is engaged in the practice of medicine. The financial arrangement between a hospital and a physician is not a determining factor in the ethics or legality of medical practice in hospitals.³³

While it is true that the code of ethics of the American Hospital Association declares it to be unprofessional for a physician to permit a direct profit to be made from his services by any lay body, organization, group, or individual, the prohibition evidently is aimed against commercial exploitation; it would clearly not prevent nonprofit organizations from engaging in contract medicine even if an operating surplus is accumulated as a reserve.

Profit groups or corporations may not employ physicians and receive the fees, or control the selection of physicians or contract to provide medical treatment. The

distinction primarily is in the nature of the corporation, rather than the arrangement to compensate the professional workers.

Groups of physicians may form a non-profit cooperative corporation in New York State to furnish medical expense indemnity service, and it may contract on behalf of its members with doctors who themselves finance the equipment and services involved, provided the arrangement does not involve any factor of fee-splitting. The arrangement must be "limited to securing to each member of the group, payment for services performed by him after contributing a proportion of office expenses approximately equivalent to his use of office facilities."³⁴

³³ Principles adopted by the board of trustees of the American Hospital Association, Jan. 18, 1938.

³⁴ Opinion of Atty. Gen. New York, re: Article 9-C of the State Insurance Law.

4. Upgrading of Hospital Care Is the Goal of Massachusetts Licensing Law, by *Vlado A. Getting, M.D., Richard P. MacKnight, M.D., and Mary T. McCann**

MASSACHUSETTS was one of the first states in the country to pass a law requiring licensing of hospitals. Naturally enough this began with the licensing of maternity hospitals or maternity units in general hospitals. This law became effective in 1876 and as is stated in the annual report of the State Board of Charities for 1875-76 was "for the purpose of putting regulations on places where babies were born."

This legislation was concerned with the protection, identification and safeguarding of the natural rights of the newborn. The enforcement of this act was put into the hands of the local boards of health who had little in the way of personnel, standards or equipment with which to work. There was no central office to check on the availability of standards, and regulations varied with each board of health. Indeed,

many boards of health had no regulations whatsoever.

Although for thirty-five years it was known that this act was not being enforced—or was at best feebly enforced—no change was made until 1910 when the control of maternity units was transferred to the State Board of Charities, thus at least providing a central office where standards could be set up and personnel and equipment provided. By this change the supervision of lying-in hospitals became more closely connected with the laws on the protection of infants.

From 1910 until 1922 the inspections were made by two men, one a lawyer and the other an investigator. Little thought was given to the development of the act from the hospital point of view. Great

* Adapted from *Hospitals* 18:28-30, Mar. 1944.

emphasis was placed on the legal aspect, which was taken to be the safeguarding of children and the prevention of abandonment and dependency.

In 1922, the Massachusetts Medical Society proposed a survey of maternity hospitals throughout the state. This study was made under the direction of the Division of Child Guardianship in the Department of Public Welfare. The regulations adopted in 1910 and revised in 1916 were again revised in 1923 and 1924 when particular emphasis was given to prevention of blindness as well as to the protection of children. In 1931, the term "lying-in" was changed to "maternity" and the term "in labor" to "during pregnancy, delivery, and while recovering from delivery." By these changes greater supervision was afforded the maternity units of hospitals.

In 1936, a special commission to study and investigate public health laws and policies recommended that, with the exception of mental disease hospitals which were licensed by the Department of Mental Diseases, all hospitals including homes for the aged, rest homes, and convalescent homes or nursing homes be required to obtain an *annual* license from the Department of Public Health.

The commission further recommended the transfer of the licensing of maternity hospitals from the Department of Public Welfare to the Department of Public Health. A bill including these recommendations was defeated in the legislature. After repeated attempts at legislation, finally in 1941 an act "regulating the licensing by the Department of Public Health of hospitals and sanatoria" became effective.

In considering the licensing of hospitals it is of interest to review briefly licensing as it applies to the practice of medicine

in Massachusetts. There are four aspects of licensing of medical practice.

First, the physician; up to 1850, the Massachusetts Medical Society issued licenses to physicians. The Board of Registration in Medicine was not established until 1894 and is now authorized to issue licenses after proper examination and certification. In 1910, the Board of Registration in Nursing was organized and is now authorized not only to register nurses after proper examination but also to license schools of nursing and schools for the training of nursing attendants.

Second, medical schools; these are now subject to approval by the State Approving Authority which consists of the Commissioners of Education and Public Health and the Secretary to the Board of Registration in Medicine. According to this legislation any student who has entered a medical school after January 1, 1941, cannot be accepted for examination for registration as a physician unless he is a graduate of a school of medicine approved by the State Approving Authority. To date three schools in Massachusetts have not been approved.

Third, clinics; in 1918, the Department of Public Health was authorized to license medical clinics, dispensaries, and outpatient departments of hospitals. Since January 1, 1944, outpatient departments located in hospitals were included in the hospital license and do not require separate licensing. In 1943, additional legislation extended the clinic licensing to include dental as well as medical clinics.

Fourth, hospitals; the historical background leading to legislation requiring the licensing of hospitals has been briefly reviewed above. The Department of Public Health, however, has had prior interest in hospitals in the following manner: The law provided that subsidies may be given

to approved sanatoria for the care of patients with tuberculosis. In 1927, the hospitals cooperated with the department in the organization and maintenance of cancer clinics. In 1937, the State Cooperative Venereal Disease Clinics were started chiefly in polyclinic outpatient departments of hospitals.

In 1936, the hospitalization of crippled children was begun under the auspices of the Crippled Children's program, financed by funds made available by the Children's Bureau. Finally in 1943, the department, in accepting the Emergency Maternal and Infant Care program for the families of servicemen, participated to a greater extent than ever before in buying services from hospitals. In these ways as well as in the investigation of various types of infectious diseases, a good rapport had been built with the various hospitals in the commonwealth.

The present law for the licensing of hospitals provides for an advisory committee. Two of these positions are filled by persons appointed upon the recommendation of the Massachusetts Hospital Association. The committee meets at least twice a year and consists of the following: one obstetrician, one internist, two surgeons, two superintendents from large hospitals, one from a small hospital, a superintendent of a tuberculosis and isolation hospital, a hospital trustee, and the director of the Associated Hospital Service. The purpose of this advisory committee is to suggest standards and policies for the administration of the program.

For the purposes of licensing, hospitals are classified as (1) general hospitals with maternity service, (2) general hospitals without maternity service, (3) maternity hospitals, (4) tuberculosis hospitals, (5) other hospitals as designated. The hospitals as above classified are further divided

into the following groups: A, 1 to 49 beds; B, 50 to 149 beds; and C, 150 or more beds. According to an opinion of the state attorney general, county sanatoria and state hospitals do not come under the provisions of this act.

The act authorizing the licensing of hospitals provided for setting up minimum standards for hospitals. Prior to the effective date of the licensing law, the advisory committee together with representatives of the department and other advisors drew up the Hospital Standards as a guide to the department. These standards are divided into five major sections.

The first section concerns the administration of the law and provides definitions and procedures.

The second section concerns structural requirements such as fire protection, sanitation, heating, lighting, ventilation; services such as food handling, laundry, linen supply, and cleaning; laboratory equipment and facilities; x-ray and drugs; personnel and medical records.

The third section concerns the surgical department and provides standards for operating room, surgical equipment, sterilization, anaesthesia, staff, pre-operative and post-operative care, and operative records.

The fourth section concerns maternity services and hospitals and provides for maternity units, newborn nurseries, premature nurseries, formula rooms, personnel in maternity units and nurseries, visitors, and records.

The fifth section concerns tuberculosis sanatoria and provides standards for equipment, procedures and personnel.

Of necessity due to the war emergency, the department has had to be rather lenient in interpreting these minimum standards. In addition, it was found that many institutions had to be assisted in meeting

the minimum standards not only in the organization and supervision of the hospital but also in the matter of equipment and construction. It soon became obvious that more stringent enforcement of the regulations would have to be postponed until the termination of the war.

The hospital licensing unit began to function on June 1, 1942. Its personnel consisted of a physician, the supervisor of hospital inspection, a nurse, the hospital inspector, and a clerk. Two aspects of hospital licensing became apparent. First, administration and supervision of certain hospitals: the problems most frequently presented were (a) poor administration, (b) inadequate nursing personnel, (c) lack of staff organization, (d) incomplete medical records.

Second, equipment and construction; the physical equipment of many of the smaller hospitals left much to be desired, but due to restrictions imposed by priorities and shortage of certain materials it was often impossible to secure certain types of much needed equipment and material and labor for construction. However, it is expected that reasonable recommendations requiring additional equipment and structural changes will be adopted during the war and that subsequently extensive additions and changes will be required.

As of January 1, 1944, 170 of the 186 hospitals in the commonwealth have been licensed. Comparatively little time was required for the inspection of some of the well-organized and administered hospitals. However, repeated inspections and recommendations had to be made to some poorly equipped and less well-managed institutions.

It was the experience of this department that the smaller hospitals require more frequent inspections and supervision than do the larger institutions. Sixteen hospitals

have not yet met the minimum standards as provided by the regulations of the department. These have been served limited time notices within which they must meet the standards or cease to function as hospitals. Ten other institutions have been converted into nursing homes. Five have closed their doors.

Of 186 hospitals inspected, 112 were able to meet these minimum standards without any major corrections. In 19 institutions the records were entirely inadequate. In 10 institutions there were insufficient or almost no safety regulations. Thirty-one institutions lacked adequate safety regulations and, in addition, had to make changes in the construction of the buildings. Time does not permit detailed analyses but a few of the highlights are given below. In four institutions the heating apparatus was so unsafe that it had to be altered materially, and fire protection walls had to be constructed surrounding the heating apparatus. In two hospitals, which also had unsafe heating apparatus, the entire stairways had to be rebuilt. Several institutions were ordered by the Department of Public Safety to clear top floors, because these were fire traps and should not be used either for patients or for dormitory purposes.

The chief construction faults had to do with the lack of adequate exits, unsafe stairways, limited fire escapes, and incorrectly hung doors. One institution was outstanding. Before inspection it had a capacity of 63 beds. Some of these were in windowless rooms which were not connected with corridors and had to be entered through other rooms. Subsequently, the capacity of the building was reduced to 39 by installing an entirely new corridor running lengthwise through the building.

There are still a number of hospitals, chiefly in Boston, which have patients on four floors without elevator service. This obviously is extremely undesirable and attention will be given to this matter when the procuring of elevators again becomes possible.

The object, of course, in hospital licensing is to provide minimum standards so as to assure the hospital personnel that they are rendering service of a high caliber and thereby assuring the patient that he is getting adequate service. It is the intention of the department to raise gradually the standards for hospital licensing. This, however, must await the availability of materials and personnel.

Hospitals with just minimum standards are being continuously stimulated to improve the service they render. It is hoped that additional hospitals will join the Massachusetts Hospital Association and thereby obtain an opportunity to meet with other hospital administrators, exchange information, and apply these findings to the improvement of their own institutions. At the present time 150 hospitals are members of the Association. In addition hospitals are being urged to qualify for approval by the American College of Surgeons as their requirements are at present higher than the minimum standards required for licensing in Massachusetts.

SUMMARY

In the eighteen months which have elapsed since the Massachusetts hospital licensing program has been in operation, 170 hospitals have been licensed and 16 are in the process of meeting the minimum standards to qualify for licensing. Ten institutions have been converted into nursing homes and five have closed their doors.

Since the operation of this plan, a material improvement has been observed, especially in several small hospitals. Although hospitals are issued a license which is valid for two years, repeated inspections are made of all institutions in order to supervise their operation. In some instances it has been necessary to investigate complaints and to issue warnings to hospitals which have neglected to abide by one or more regulations.

Almost without exception hospital executives, trustees, and staffs have cooperated in this program. Under the guidance of the Hospital Advisory Committee and with the assistance of the Massachusetts Hospital Association and many others interested in hospital facilities, it is expected that the licensing of hospitals in Massachusetts will ultimately achieve those results for which this legislation was intended, namely, better care of patients in better hospitals.

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CHAPTER XXII. HOSPITAL CONSTRUCTION

1. Postwar Construction of Hospitals, *by Isadore Rosenfield**

WITH each item of news from the battle fronts one can sense the rising tide of popular clamour for a better post-war world. There seems to be a determination that this time democracy shall be implemented by constructive measures in all departments of human need. Among these is the cry for better health care, and hospitals are an indispensable instrument of such care.

Already there is evidence that city, state, and federal agencies are thinking, studying, and preparing for the postwar activity. In New York City alone the immediate postwar construction program is estimated at close to \$679,000,000, of which the share for the Departments of Health and Hospitals amounts to about \$84,770,000. The cost of studying the various projects and the preparation of the plans and specifications, to be ready for immediate construction the moment the war is over, amounts to over \$23,626,000. The above total figure for New York City does not include the contemplated expenditures for housing, the various separate "authorities," or state and federal projects that would be built in the New York City area. But even without these, if the entire nation were to spend in proportion, the sum would be \$12,610,000,000, and the sum for health centers and hospital projects about \$1,574,000,000.

Of course this is mere speculation, but it does give some conception of the magnitude of things to come. On the other hand, these sums do not reflect the entire need. They account only for the projects for which construction can be started at

once. All large works can be done only in stages. If the same tempo of construction were to be maintained over a period of say five years, during which might be accomplished all that is seen as the need today, then the sums above mentioned might easily be doubled or trebled.

PROGRAM NEEDED

Large public works were carried out to a considerable extent with federal assistance as a sequel to our late catastrophic depression. Although the sums spent were huge, the planning period was almost nil. There was no planning until the day Congress passed the enabling legislation. Then there was a mad rush to concoct "programs." The only reason the resultant white elephants were few was because the need was so great that almost any suggestion, however badly aimed, could hit the mark of human need. Nevertheless, some funds were not wisely spent. There is no excuse for waste, particularly when the need is so great. The scrutiny which the Federal Government applied to the requests by the various communities was most superficial in character. In fact, the federal agency did not possess the standards and criteria by which to evaluate the need for the various projects. Likewise, the agencies making the requests generally did not possess the knowledge on which to base intelligent requests.

Unless the Federal Government and the various political subdivisions and communities cooperate in setting up criteria and standards, there is apt to be waste and

* Adapted from *Hospitals* 17:28-30, May 1943.

chaos. Planning as a democratic process requires an objective attitude on the part of those who make the requests, as well as on the part of those who have the power to pass upon them. Chaos may result from lack of knowledge, avaricious grabbing for as much as may be got, or from a desire to build one's self a monument out of proportion to the needs of the community.

An interesting example of this was the experience with the Lanham Act. The Act was created to provide needed social services to communities swamped by a sudden influx of war workers. As far as hospitals are concerned, the impression seems to be that the plans presented with the applications were frequently out of balance with the needs. Thus, whereas the funds were intended to benefit the working people, many of the plans showed a large proportion of private and semiprivate accommodations and comparatively few wards suitable for wage earners. On the face of it, it looked as though some elements in the community sought to use the Lanham Act as a means of building up private facilities. In any case, priorities on building materials nullified the construction of permanent, monumental hospitals, the kind most applicants wanted to build with Lanham Act funds.

Merely listing projects is not planning. We have little experience in peacetime planning in this country. Our wartime experience should be of tremendous value if properly utilized. We learned from the PWA and WPA days that if there is to be reconstruction on a large scale, it can only be done with federal aid and under federal coordination. If the postwar effort is to be larger than anything we have had, and if it is going to be a planned effort, then it will be necessary for the Federal Government to assume leadership and work with and guide local communities. At least, in

the immediate postwar reconstruction, the problems of manpower and material allocations will persist. This definitely is a problem that can only be handled federally.

In the case of hospitals it may be suggested that local communities be left to make their own estimates of need, but there are many communities which do not have the least idea of how to go about it. Communities would differ widely in their point of view. This might result in discrimination as between economic strata or ethnic groups. Clearly, it would seem that the Government would have to prepare questionnaires designed to bring out the pertinent facts. The Government would have to plot out the findings of conditions so as to determine the need and the relative need.

Evaluation is possible only in terms of pre-established standards and norms. This in itself is a very difficult matter because there are no adequate standards and a process is yet to be developed which would furnish a reasonable and safe approach to the problem of allocation.

Five general hospital beds per thousand of population have been frequently spoken of as a proper standard of hospitalization. Recently, the Federal Government, presumably for purposes of the Lanham Act, reduced this to 4.5. A little reflection on the matter shows this standard to be extremely crude and therefore meaningless.

Hospitalization as a health measure can hardly be considered apart from all other health measures and living standards. A well-educated community, free from fear and want, might need less hospitalization than a community that lives in fear, want, and ignorance. A community which has a thorough-going program of preventive medicine and post-acute hospital care will need fewer beds than one which has little or nothing before or after hospitalization.

All of our hospital literature speaks of so many beds per thousand as if these beds were equally available to every member of the community. A moment's reflection will show this assumption to be lacking in realism. In the average well-to-do American community a relatively small percentage of the population can afford to pay for hospitalization, and the beds available to them at a price in the form of private and semiprivate accommodations are in excess of 4.5 per thousand. The percentage of idle beds in the private room category is particularly noteworthy. It is usually 40 per cent, which means that out of every ten beds provided for those able to pay, six are occupied and four are standing idle. For those unable to pay, the beds available are frequently considerably below 4.5 and the occupancy very high. In many parts of the country, notably in the south, the situation is much worse.

There are in Manhattan 9.4 beds per thousand of Manhattan population, but a good proportion of these beds are for the well-to-do who come to this hospital center from great distances while the municipal hospitals in Manhattan like Bellevue and Harlem have an average occupancy of 102.8 per cent and 101.1 per cent respectively. One of the communities adjoining Manhattan has 1.8 beds per thousand, but after the pay-beds are subtracted, the population who cannot pay have left to them 1.1 beds per thousand.

In short, under our economic system, it is idle to talk of beds per thousand for the community as a whole. The well-to-do are able to care for themselves. The middle-income groups may be perceptibly helped by the Blue Cross Plans, if properly developed, but the great masses of the people must be specifically provided for after accounting for the beds that exist exclusively for those who can pay. This attitude which

is correct and realistic should result in the creation of a new and realistic standard of beds needed by the community.

There are other factors that influence the standard of beds per thousand of population. One of them is the problem of home medical and nursing care. Undoubtedly, adequate provision of such care should reduce the pressure on hospitals considerably, and a study of this question is yet to be made. Another is the development of adequate outpatient clinics and health centers where proper advice or minor medication could frequently save a patient from hospitalization. The lack of provisions for the care of chronics either at home or in institutions causes the crowding of municipal hospitals and, to some extent, the free wards in voluntary hospitals. This is uneconomical and unjust to the acute patient who cannot obtain a bed in the hospital because it is occupied by a chronic. The average occupancy of a bed by an "acute" patient is twelve days, while that of a chronic is three months. A recent survey of chronics in municipal general hospitals in the City of New York shows that 25 per cent of the beds are so occupied. Experience shows that it costs a good deal less per patient day to care for an active chronic in an institution specially designed for him than it does to take care of him in a general hospital. It costs still less to take care of a custodial chronic in an institution especially designed for him.

The inadequacy in provisions for convalescent care is still another factor that taxes the general hospital. When there is a shortage of beds, there is a tendency to discharge patients too soon in the hope that their home conditions are favorable to their recovery. Often the patient insists on being discharged because he must return to his function as a provider. If the patient stays

on, he occupies a bed needed by an acute patient. In a convalescent home, the convalescent patient would be happier, he would recover faster, he would release a bed to someone needing it more than he does, and he would be provided for at a far less cost than in a general hospital.

If we should assume that 4.5 per thousand was correct for those unable to pay, it may prove to be excessive for communities having home care, outpatient clinics, chronic and convalescent institutions and not enough for communities not having these facilities.

The Social Security Act if made adequate in its provisions should be ultimately a factor in the reduction in the demand for hospital beds, but at the beginning it should be expected to stimulate that demand. How are we going to satisfy it?

As stated above, ample provision has been made for the well-to-do. In communities where Blue Cross Plans are well developed, the semiprivate facilities are already frequently overcrowded. Those unable to pay either go to already overcrowded wards or "do without." The man who now "does without" will demand a bed for his money under the Social Security Act and the man who is now reposing in a hospital corridor will demand a decent ward in which to be sick. Obviously, the private accommodations are not going to be made available to Social Security patients, and in any case, the vacant beds

in the upper brackets are numerically insignificant by comparison with the need.

This country now has about 3.7 general hospital beds per thousand. If one-fifth of the population has at the rate of 5 or 5.5 beds per thousand, then 108,000,000 of our people have 3.37. If the 4.5 standard means anything we are 122,000 beds short and the cost of supplying the deficit would be \$600,000,000 to a billion dollars.¹

Will the Act be so phrased as to permit construction of new hospitals out of Social Security funds, or will construction costs be met under a separate Act similar to the PWA? It is to be hoped that this question is not going to be met by ignoring it. Whoever provides the funds, are we going to build general hospitals only, or are we going to be encouraged to build up systems of health education, outpatient clinics, home care, chronic and convalescent care?

The above is a brief and sketchy discussion written in the hope that it may lead to further thought, exploration and crystallization of a clear-cut plan.

¹ This sum does not take into consideration the cost of replacing hospitals that are obsolete, or the cost of building health centers, outpatient clinics, chronic disease hospitals, and convalescent homes. As an example, the City of New York spent many millions of dollars in hospital construction in the last seven years, but the beds gained were not in proportion to the millions spent because a good deal of the money had to be employed to replace obsolete buildings and to provide outpatient and other services in which the hospital system was lacking.

2. How Small Is Too Small? by E. M. Bluestone, M.D., Joseph C. Doane, M.D., and Claude W. Munger, M.D.*

"Just what is the optimum bed capacity of a hospital so that it can operate most efficiently and economically? After a hospital reaches a size at which an assistant administrator and assistant department heads are required, the operating expense increases. There must be a certain size of

hospital that can be operated more efficiently than it could be if it were from 25 to 50 per cent larger or from 25 to 50 per cent smaller."

* Adapted from *Mod. Hosp.* 62:62-63, May 1944.

This question, from a physician who is a member of a state hospital commission, is of interest to every individual hospital as it looks ahead to its future place in the community. It is equally of interest to the officers of state and national hospital associations and to public health leaders and city and regional planning experts who are now thinking about the development of hospitals, health centers, and dispensaries for the postwar world.

To present to our inquirer and to the readers of *The Modern Hospital* a well-rounded answer to this question, the subject was referred to three of the members of our editorial board who have had extensive experience as hospital administrators and consultants.

Although these three authorities have quite different backgrounds of hospital experience, it is interesting to note the strong similarity in their conclusions.

Dr. E. M. Bluestone, director of Montefiore Hospital for Chronic Diseases, New York City, answered as follows:

"From the point of view of the patient, a hospital that increases its size does so more or less at his individual expense. In his transfer from the comforts of his home and his family to the possible discomforts of the hospital and its group of strangers, he sacrifices something in order to gain something.

"It is important for us to determine the point at which he is best able to strike a good bargain. Having made the decision, the hospital should maintain, quantitatively, a sufficient number of beds and, qualitatively, a sufficient degree of specialization and division of labor to serve its patients best.

"No one can tell any given community the optimum size of its hospitals. Besides, there are general and special hospitals; there are teaching hospitals and research

hospitals; there are taxpayers' hospitals and voluntary hospitals.

"It has been held for some time that we need one general bed for every 200 members of the population. In tuberculosis we used to speak of one bed for every tuberculosis death.¹ Half of the hospital beds of this country are given over to the care of mental disease.

"If a figure must be given, it is the consensus that a 500 bed general hospital is the size most likely to produce the best all-round results."

Dr. Joseph C. Doane, medical director, Jewish Hospital, Philadelphia, agrees with this conclusion.

"When I planned the Philadelphia General Hospital, which is an institution of 2,500 beds," he says, "I felt, and others called into consultation agreed, that in the administration of a large institution there is a maximum number of beds that can be administered efficiently as a unit.

"We decided that we would divide this institution into units of 250 beds each.² The men's and women's medical divisions constituted one medical unit of 500 beds. The surgical, gynecologic, and obstetric wards were arranged in the same way. The neurologic wards consisted of a unit of 500 beds. These units were connected by cross corridors on each floor so as to shorten travel lanes.

"It was my plan to have a medical administrative officer in charge of each unit and a nurse in charge of each group of 250 beds, with a nursing supervisor over these two nurses. Requisitions, inspections, and other administrative activities were to be routed toward the director of the hospital through these individuals.

"I am strongly of the opinion that 500 beds is the maximum number for efficient

¹ This ratio has now been doubled by the experts.—Editor of *The Modern Hospital*.

² *Mod. Hosp.*, Mar. 1928, p. 77.

administration. In the construction of a larger hospital on the detached or semi-detached plan, I believe that the layout of Philadelphia General Hospital is a good example of the appreciation and utilization of this principle."

Dr. Claude W. Munger, director, St. Luke's Hospital, New York City, states it well when he says:

"I hesitate to hazard any definite opinion but I feel that the optimum capacity lies somewhere between 250 and 500 beds and that it is nearer the latter than the former.

"In general, there is a point, in bed capacity, beyond which it is inadvisable for an acute general hospital to go, if it wishes to continue to have a personalized service to patients insofar as the administration is concerned. If such a hospital becomes excessively large, it is only with increasing effort that it is able to maintain the service and the hospital-patient relationships that it would like to have.

"Opinions as to the optimum in bed capacity would differ. My experience has been in four general hospitals. The first had 40 beds, increased while I was there to 100 beds; the second, 175 beds; the third, 350 beds, increased during my incumbency to 1,000 beds; the fourth and present one, 500 beds plus a country branch of 130 beds. I feel, accordingly, that I have somewhat run the gamut as to size of institution.

"Personalized attention was good in the 40 bed, 100 bed, and 175 bed institutions but, in my opinion, all three of those hospitals were too small to enable one, without unusual effort and expense, to have an organization and departmentalization that were really adequate to all of the needs of the patients.

"It was much easier to approach this at 175 beds but even there we had to pay

salaries to specialists, such as pathologists and roentgenologists, which were more than the average hospital of that size could have supported. We were able to do it only because of fortunate financial support in making up deficits.

"The 350 bed institution did not offer these difficulties because there were enough patients to justify adequate salaries for necessary specialists and to permit sufficient departmentalizing without establishing departments that did not have enough to do.

"In my opinion, there was some loss of the personal touch in the 175 bed and the 350 bed capacities. However, it was not serious and was outweighed by the other advantages. It was easier to keep per capita costs more nearly within the reasonable range and 'efficiency and system' could be more readily attained.

"The 1,000 bed hospital certainly lost out so far as personal touch with the administration was concerned. This was overcome, in part, by breaking the institution down into units, not only clinically but administratively. I am certain that as administrative head, however, I had more difficulty in getting my own ideas across and in making certain about the way the work was going than had been the case when the hospital had 350 beds.

"At present, here at St. Luke's, I find that it is still possible to know a great deal about individual patients, certainly those who present any unusual problems, and by extra effort it is still possible to personalize the service.

"I can visit our convalescent branch not oftener than once each week because it is thirty miles away and so I must delegate a great deal to the resident assistant in charge. However, we are able to correlate the work of the two institutions quite closely."

An illuminating discussion of this subject occurs in *The Hospital Survey for New York*.³

"A hospital should not be so large that the director cannot have knowledge of and contact with the personnel. How large a unit one person can administer depends a great deal upon the personality of the individual man or woman in the position of authority, but it is questionable whether one person can run an institution of much more than 800 beds to the best interests of the patients therein and of the community that supports it.

"In the very large hospitals, especially those not of the vertical type of construction, transportation in itself presents a serious problem. It is a hardship to both patients and personnel if the distance between wards, operating rooms and other departments is great.

"However, this does not mean that urban hospitals should be small; on the contrary, the advantages of fairly large hospitals far outweigh their possible disadvantages. It is extravagant for the community to finance large numbers of small institutions, each with its own buildings, director and superintendent of nurses, and it is relatively more costly for small hospitals to provide high-grade service."

The survey also points out that the small hospitals in the area surveyed, in general, had lower necropsy rates, provided less physical therapy, and had lower ratings on their physical plants with respect to buildings and grounds, fire protection, and sanitation than did the hospitals of more than 200 beds. The smaller general hospitals also had lower percentages of occupancy at the time of the survey.

"The ideal hospital system for any large city is one or more 'unit hospitals,' depending on the size of the community served. Such a hospital is equipped to deal

with any type of case any day. The clinical specialties should all be represented in it and the allotment of beds to each specialty should be large enough to justify the daily attendance of a member of the attending staff attached to such special service.

"What attracts a specialist to a general hospital is the existence in that institution of the full equipment and the trained personnel necessary for the hospital practice of his particular specialty. It is impossible for small general hospitals to provide these essentials for all the different medical specialties and, hence, they cannot hope to 'deal with any type of case any day.'"

The survey specifically recognizes that the smaller communities that are part of the New York metropolitan area may be justified in having small general hospital units, "but in New York City such institutions are uneconomical."

In view of these facts the survey recommended that no more general hospitals of less than 200 bed capacity be built in New York City or, except in unusual circumstances, in the metropolitan area outside New York City; that no funds be spent to reconstruct small hospitals not now used to advantage by the community, and that the number of relatively unoccupied (in 1934) general hospitals of smaller size be gradually decreased through merger with larger institutions.

Obviously, recommendations for a large metropolitan area would need to be modified considerably if applied to rural areas or smaller cities and towns. In such areas, the answer to the inadequacies of the small general hospital is probably to be found not in closing the small hospital but in supplementing its service by close affiliation

³ United Hospital Fund, *The Hospital Survey for New York*, New York, The Fund, 1937-1938, Vol. II, p. 324.

with a "unit hospital," such as is being done with the assistance of the Bingham

Associates in New England and the Kellogg Foundation in Michigan.

3. Planning a Hospital to Human Specifications, *by J. J. Golub, M.D.**

WHEREVER physicians aided by nurses minister to the sick, there, it can be said, is a hospital. Although for a long time hospital service has advanced beyond this simple characterization, its significance is not weakened by the newer and now customary way of defining a hospital in terms of functions. Thus, it is now properly said that the functions of a hospital are not only to provide hospital care for patients, but also to be a source of medical and nursing education, to engage in clinical and laboratory research, and to participate in programs of disease prevention. Obviously, these functions are human activities centered around the patient and performed by the physician and the nurse.

The characterization becomes no less meaningful in the light of the many advances in medical science, particularly in the new diagnostic and therapeutic methods emanating from physiology, physics, pathology, bacteriology, and chemistry; in the application of the knowledge derived from the social sciences—so much of which concerns society and the individuals in it; in the progress of architecture and engineering—their general and special features in design and in mechanical devices, and the selection of special building materials suitable for hospital construction; in the introduction of a large variety of specialized equipment and precision instruments; and in the numerous and altogether too complex but inescapable aspects of clinical and administrative organization—so-called hospital management. For all of these criteria primarily focus their attention on the patient, vitally concern the techniques of the physician, profoundly affect the prac-

tices and procedures of the nurse, and aim to make the manifold tasks of hospital service as a whole efficient and safe.

While it is unlikely that anyone would disagree that the patient, physician, and nurse are fundamental to the hospital's existence and aims, and that much of the hospital's growth and development from simple and modest beginnings to its present-day edificial structures are attributable to them, yet in some quarters this heroic trio is given insufficient consideration when the hospital is being planned. There is need for more awareness that each one of this human trio is as essential to the hospital as height, width, and depth are to a cube—the elimination of one dimension would destroy the cube. There is need too for greater recognition that many constructive specifications and much guiding information for hospital planning, construction, and equipment, when sought, may emanate:

1. From close observation of the experiences and service requirements of the patient, and from the keen hospital administrator, who has ample reason to know that the articulate patient, especially when intelligent, often correctly points out physical conditions in the hospital that cause inefficiency of service, discomfort, threaten safety, and may even retard recovery.

2. From the observant physician, if his exacting and life-saving techniques are to be facilitated and his orders safely and expeditiously carried out.

3. From the alert nurse, if her practices and procedures are to be efficiently performed and her health safeguarded.

* Adapted from *Hospitals* 17:13-20, Feb. 1943.

While such specifications and information undoubtedly would require thorough sifting of the practical and feasible from the impractical and unfeasible, enough of the former would remain to justify close attention on the part of hospital planners to the opinions and views of the patient and those qualified to speak in his behalf, and of the physician and nurse, when it comes to planning, constructing, and equipping the hospital in which they are to serve and be served.

The opinions and views of this trio of indispensables would be many. Most of them would be interesting, some would be conclusive, but here space permits discussion of only the following seven interrelated human specifications:

SEVEN HUMAN SPECIFICATIONS

Specifications	Source of specifications		
	The patient	The physician	The nurse
1. Space	×	×	×
2. Equipment		×	×
3. Communications	×	×	×
4. Privacy	×		
5. Comfort	×		
6. Safety	×	×	×
7. Fatigue elimination			×

SPACE

All who reside in a hospital and who perform the hospital's task are concerned with "space." In a paper in *The Lancet*, describing the new Treloar Hospital, Sir Henry Gauvain writes with justifiable satisfaction, "This hospital of my dreams is now completed." Sir Henry's elation need not be lessened by the knowledge that dreams are flighty, and that today's physically perfect hospital may be imperfect tomorrow. Not having a perfect hospital remain perfect is normal, in the light of change and progress. A new hospital, correctly planned, soundly constructed, and

intelligently equipped, shows up the imperfections of those of earlier vintage. Successively, hospitals improve physically when they are planned to provide adequate space, equitably allocated to all hospital departments, and logically related in contiguity and proximity. Equitable allocation of space to each department and service depends on knowledge of the quality and quantity of work expected of each. The number of patients and personnel to be served, and whether and to what extent the department or service will be engaged in research and teaching, are determining factors.

It is now known from experience what the desirable number, dimension, shape, and ceiling height should be for each department and room in hospitals of all sizes. No sacrifice of interior plan, which aims to accomplish utility, flexibility, economy of operation and construction, should be made to meet the exterior architectural design. Only after all essential interior requirements are met may consideration be given to the exterior.

Patient's Bed Space

Hospitals have traveled a long way from the days when hospital beds were occupied by two to four patients. Today each patient has his bed, as a matter of course. Provision is also made for a distance of three to four feet between beds, with curtain or permanent cubicle for each bed.

It is no longer regarded as a luxury to provide 80 to 100 square feet, and a ceiling height of ten to eleven feet, or 800 to 1,100 cubic feet per patient's bed. These are not maximum figures. Some of our well-planned hospitals average more than 1,100 cubic feet per patient.

Patients' rooms and wards are correctly planned when their forms and areas permit placement of furniture and equipment

in a suitable manner, with free access to three sides of the bed.

The space actually occupied by a patient's bed is but a small part of the total space of a modern hospital. The total cubic space per bed in a modern hospital, say of 200 or more beds, varies from 8,000 to 16,000 cubic feet. Seventy per cent and more of the cubage is taken up by auxiliary services.

Surgical Operating Room Space

Space requirements of these auxiliary services have risen to new heights from year to year. For example, about thirty years ago it was not uncommon to find hospitals of 200 beds with only two surgical operating rooms and perhaps two or three small auxiliary rooms, occupying a total area of about 1,000 square feet. Today's modern 200 bed hospital requires no less than 5,000 square feet and about 32 rooms of different sizes for the surgical operating suite, as follows:

<i>Operating Rooms</i>	<i>Storage Rooms and Closets</i>
3 large	1 for linen
2 small	1 for stretchers
2 scrub	1 for splints and appliances
2 sub-sterilizing	1 for furniture and equipment
<i>Auxiliary Service Rooms</i>	1 for gas tanks
2 anesthesia	1 for blanket warming
1 central sterilizing	1 for cleaner
1 nurse's work	<i>Miscellaneous Rooms</i>
1 instruments	1 office
1 intravenous solution	1 frozen section laboratory
1 gloves	1 recovery
1 central supply	
1 utility	

Dressing and Locker Rooms with Showers and Toilets

- 1 for surgeons
- 1 for house staff
- 1 for visitors
- 1 for nurses

Radiology Department Space

Another example of enlargement of space requirements may be seen in the x-ray department. The one room and one x-ray machine with a small dark room for film developing, occupying an area of about 400 square feet, was no rare sight in the same size hospital thirty years ago. The radiology department has since expanded into a suite of about ten rooms, occupying about 2,500 square feet and consisting of x-ray machines and appurtenances for deep therapy, superficial therapy, general x-ray, gastric x-ray, fluoroscopy, urology, fractures—each placed in a separate room; besides a dark room for developing films, a viewing room, examining room, dressing rooms, office, and storage rooms.

Essential Space Is Given for Determined Volume of Service

It is so with all units which constitute the hospital. These units are the departments and services. Each unit is given the essential space for the determined volume of service, for the specified number of workers, for placement of equipment and furniture, and for storage of supplies. These units are then logically united and related to one another for expeditious and proficient service, and for the common use of centrally located equipment. The patient, physician, and nurse can, if invited, impart practical and invaluable guidance in matters of space allocation, arrangement, and unification. These physical aspects, when correctly achieved, result in a satisfactory hospital, and make it easier to meet the other six specifications.

EQUIPMENT

Qualities Facilitate Good Performance

Expeditious and efficient care of the

sick depends on modern mechanical equipment. Adequate medical and surgical equipment and precision instruments are essential to the physician as aids to the diagnosis and treatment of disease, and to the nurse in her manifold tasks. With the proper equipment, performance is facilitated and results are improved. For roentgenograms, superficial and deep therapy, cardiograms, laboratory examinations, and metabolism tests to be correct, adequate and modern equipment and apparatus are required. These must have the qualities of accuracy, safety, simplicity in operation, sound construction, and durability. They must be noiseless, capable of inexpensive maintenance, and of being easily kept clean.

The physician and the nurse are concerned with the efficacy of the dressing, instrument, utensil and water sterilizers, the water stills, the bed-pan washers and sterilizers, operating-room lights which illuminate the surgical area and the tissue cavity, and the hydrotherapy and physical therapy equipment and machines. They also have an interest in most, if not all, of the other types of mechanical equipment, such as that of laundry, kitchen, household, and power plant.

Wise Planning

A well-planned hospital is not under-equipped, lest service be handicapped, and is not over-equipped, lest space, money, and maintenance effort be wasted.

The wise planner examines and studies the performance of tasks, practices, and procedures of physicians and nurses. He consults them in relation to type, quantity, and quality of equipment, and in relation to their convenient location for accessibility, utility, and common use by appropriate departments.

COMMUNICATIONS

Squadron Leader Murray Harris in his book, *Lifelines of Victory*, says: "Communications are the key to victory." He, of course, uses the word in "full military sense"—a means of communicating information to and from the front line, and the maintenance of free and short supply lines. It is so with hospital communications. There is also the example of the human body, which is built around a hole with an opening at the mouth for one-way communication. When obstruction or interference occurs in this line of communication, the entire body is in trouble. So it is with the hospital, except that its communication lines are two-way.

Hospital facilities and services are built around lines of communication. When they are carefully studied and soundly planned to meet requirements, no serious defect can occur in the whole hospital plan. Correct lines of communication determine location and relationships of patients' rooms, departments, and auxiliary services. They help to unify and coordinate them in the most advantageous manner.

The hospital's lines of communication are vertical and horizontal, and for efficient performance rest on the geometric axiom that a straight line is the shortest distance between two points. The principle followed is of minimizing distances for transport of patients, for medical staff, for nurses, for personnel, for visitors, and for supplies, with as little lost motion as possible. They include communicating by electric wire, lamp, and buzzer, by elevator, stairway, ramp, chute, and corridor, and by truck and messenger.

Generally, hospital communications have four aspects: signal, oral, written, carrier and vehicle (records, packages, and supplies).

Signal Communications

One type of communication is the patient-nurse signal system. This can be a one-way system, where the patient presses a button which lights the room or bed number on the annunciator panel at the nurse's station and a light over the patient's room door. This usually requires two trips by the nurse—one to the patient to ascertain his wants, and the other to meet them. An improvement in saving nurse's steps and speeding service is the specially designed bedside telephone with a softly-toned microphone device. By means of a key or switch, patient and nurse can converse. This system is especially useful in private rooms.

The other is a visible or audible signal system to locate house staff and visiting staff members. The visible system has the advantage over the audible system in that it is free of disturbing sounds. Visible panel boards, electrically lighted and strategically located, satisfactorily serve the purpose of reaching staff members.

The installation of signal systems for emergency calls should not be overlooked, such as from surgical operating and anesthesia rooms when emergent help is needed; from patients' bath and toilet rooms to nurses' stations. In this group might also be included the interior fire signal system, and, under wartime conditions, air-raid alert and blackout signals.

Oral Communications

One such system has been mentioned in discussing the bedside telephone. The other concerns intramural and extramural telephone systems. For interdepartmental conversations, the usual telephone dial system, when connected with a specially constructed selector system, can be used for both "inside" and "outside" incoming and

outgoing calls. When installed, it saves time and labor and expedites information and service.

Written Communications

This is best attained by the installation of telautograph or teletype machines, located in places where speedy written communications are essential, such as between outpatient registrars and record room, giving patients' serial numbers for the purpose of sending history records to the clinic the patients are to visit; from the office of the surgical operating suite to nurses' stations to prepare and send patients for surgery; and between nurses' stations and business office.

Carrier and Vehicle Communications

Carrier and vehicle (records, packages, and supplies) communications involve consideration of two features:

1. Location of receiving and delivery stations, and determination of routes of electric or pneumatic tube carriers of patients' records from central record room to clinics, for expeditious service and elimination of messengers. The electric carrier system has advantages over the pneumatic tube system. In the former the records do not have to be rolled to fit into a tube, but can be sent flat and are thereby saved from wear and tear. It is noiseless, and less expensive to erect and maintain. In large hospitals, one of these systems is useful in the business office for speedy communication with the offices of selected departments, especially the outpatient department and nurses' stations, particularly on busy floors.

2. Delivery of packages and supplies by vehicle or messenger. This requires the shortest routes; stairways, ramps, chutes, elevators and corridors form the pathways.

Planning must consider their location, length, width, depth, door openings, light, and ventilation. Floors, walls, and wainscoting specifications are based not only on walking traffic, but also on the hard wear of vehicle traffic.

Numerous steps, much energy, and considerable time of nurses and personnel are saved by the study of routes with reference to convenient location of supply sources and their ultimate destination on the several floors of hospital buildings, such as storeroom to kitchen and laundry, kitchen and laundry to floor and return. The routes patients take on stretchers, wheel chairs, or by foot from their beds to the surgical operating room, x-ray department, physical therapy, and other departments, as well as the way from patients' floors to the morgue also require careful consideration.

Patient, physician, and nurse should be able promptly to reach each other, and to reach other hospital departments and services. The supply line should be at once expeditious and noiseless. The attainment of these ends is made easier when the direct experiences and views of patient, physician, and nurse are known to those who plan the hospital.

PRIVACY

In any size room or ward of any number of beds, the patient's privacy can be reasonably provided by suitable planning and placement of beds. It is highly desirable to do this. The patient's requirements for his very personal needs should be met as far as possible. He should not be exposed when undergoing physical examination or treatment. A patient in a cubicle or screened by curtains is more relaxed, more cooperative, and will yield more relevant information when questioned by the social

worker, house or visiting staff member concerning social and economic status and illness history. He will be inclined to communicate more freely his fears, complaints, worries, and needs to the physician, nurse, and social worker. Privacy also reduces or eliminates visualization of depressing scenes, such as a patient returning to his bed after a surgical operation, the appearance of very sick patients, and patients in oxygen tents.

During convalescence, privacy is equally desirable. The patient, beginning to return to normal physical condition and relieved of mental anxiety, may desire to dress in privacy when leaving his bed or clean his removable denture without being observed.

Planning for privacy should not overlook Dr. S. S. Goldwater's warning that "Privacy with adequate attention is one thing; separation with neglect is another. Besides, the sick are often terrified by loneliness; it is as true as ever it was that misery loves company."

Patients can be given certain privacy without the feeling of loneliness, accompanied by satisfactory attention, when the hospital is well planned and properly managed. To remove the feeling of being shut off, or to improve ventilation, many patients in private rooms often desire their doors partly opened. This can be accomplished when the door is made to swing in an inward direction, in proper relation to the bed. The door can be opened at an angle without exposing the patient to view from the corridor. These advantages are also secured by the installation of dwarf doors in addition to the regular doors. Similar results can be obtained in two-bed rooms. In wards, the simple pulling of a sliding curtain or the construction of a suitable cubicle will screen patients.

The personal experiences of intelligent

patients with reference to privacy, or the knowledge of those who have carefully studied the problem when such study is based on keen observation and discussion with patients, are of immeasurable help to sound hospital planning.

COMFORT

What contributes much to comfort is avoidance of conditions that tend to vex the patient, not the least of which is delayed service. Satisfactory facilities are essential for expeditious service, which in turn is a source of comfort to the patient. Generally, comfort of patients is easy to attain. When discomfort comes from physical pain, it can in most instances be alleviated by medication or by other means directed by the physician and carried out by the nurse. Other bodily and mental discomforts can be lessened or eliminated by efficient organization and service, so much of which depends on good planning, sound construction, and carefully selected and properly located equipment.

Selection of the Site

Design for comfort begins with the selection of the site, continues with the orientation of buildings, and extends to the considerations relating to the locations of patients' rooms and auxiliary services within buildings. Industrial neighborhoods, heavy-traffic thoroughfares, railroad tracks, and other conditions which are sources of noise, odors, and unpleasant sights are to be avoided when a site is considered. When a hospital building must be built on a main or noisy street, it should be set back as far as possible from the sidewalk line.

Correct Planning

Correct planning permits the placement

of the bed in proper relation to windows and doors. The window should illuminate the bed for reading without glare while, at the same time, its relation to the bed should permit ventilation without draft and, if possible, a view of the outside. Suitable exposure of buildings, proper and related location and size of windows, radiators, ducts, and doors—all in relation to patients' beds and to each other—are invaluable aids to satisfactory temperature, ventilation, and sunlight in patients' rooms. Fresh air and controlled temperature are not only sources of comfort but are also refreshing and invigorating.

Centrally controlled or individual air conditioning of rooms is less essential for patients' areas than it is in the surgical operating suite for the comfort of all—patients, surgeons, and nurses. Wash basins conveniently located in each room and adjoining or nearby toilet facilities are a source of comfort and hygiene.

Elimination of Sources of Noise

Elimination of all possible sources of noise by suitable construction and careful selection of materials is a great comfort to patients. Such sources of noise as pounding on hard floors, sudden contact of metal containers with hard floors, the sizzling radiator, the slamming door—especially of elevators—the rattling window, loud speaking, noisy equipment and plumbing fixtures (not to mention the inescapable din of city streets) are annoying to patients and disturb their comfort. Careful selection of hardware, plumbing fixtures, and satisfactory construction would reduce and in many instances entirely eliminate noises from reaching resting patients. Walls between patients' rooms should be of sufficient thickness to avoid transmission of noise. Auxiliary services which are sources

of noise should be properly shut off from patients' rooms. Soundproofing of suitably selected areas, such as delivery rooms, labor rooms, nurseries, corridors, utility rooms, kitchens, serving pantries, dishwashing rooms, and dining rooms, is highly desirable.

Prevent Circulation of Odors

Odors which are unpleasant are also discomforting. The kitchen, laundry, incinerator, and garbage storage areas should be planned and located to avoid circulation of odors. Garbage awaiting disposal should be stored in a cooled chamber. The height and location of the smoke stack in relation to prevailing winds and patients' rooms, as well as the proper combustion in boilers, should be such as to prevent soot from reaching hospital rooms.

Provide Quiet Rooms for Patients Who May Disturb Others

Separation or quiet rooms for moribund, delirious, or infectious patients are a comfort to ward and semiprivate patients who need rest and quiet. Day rooms, solariums, and verandas add considerably to the comfort of convalescing patients.

The color scheme of patients' rooms is important. Soft colors are less tiring; they brighten the room and are a source of cheer, especially when they blend with the furniture and furnishings.

Radios, properly installed and used with thoughtfulness of other patients, are a source of comfort during the long days of convalescing patients.

Here again the personal experiences of clear thinking patients and the results of studies made by competent observers as to physical conditions which cause both comfort and discomfort of patients are sources of constructive guidance in hospital plan-

ning. Those physical conditions which cause comfort should be noted so that they may not be overlooked, and those which cause discomfort should also be noted so that they may be eliminated.

SAFETY

The achievement of safety is a challenge to the hospital planner. He accomplishes it when he gives careful consideration:

1. To the causes and the ways in which preventable infections occur in hospitals
2. To fire and explosion hazards
3. To causes of accidental injuries

Infections

Sunshine, sanitation, natural and mechanical ventilation, faultless equipment, correct plumbing and electrical installations are, from the standpoint of planning, fundamental considerations in preventing the occurrence and spread of certain infections. The benefits from the germicidal action of sun rays and satisfactory natural ventilation are obtained in the fullest measure by suitably orienting the building, preferably to face a park or a wide street, or sufficiently set back from the sidewalk line and at a considerable distance from neighboring tall buildings; by determining building heights to eliminate casting shadows upon one another; by avoiding enclosed and small courts; by planning wards, rooms, day rooms, and balconies on the side of the building exposed to the south, southeast, or southwest.

Sources of infection are lessened:

When the hospital planner visualizes the interior of the hospital from the standpoint of the specific utility and function of each area.

When he aims to facilitate the performance of service procedures with as little cross-traffic as possible.

- When he recognizes that faulty traffic and lines of communication can break down defenses and can carry infections, particularly to the surgical operating suite, to the obstetrical division and its nurseries, and to the children's wards.
- When the surgical operating suite is as separate as possible—at the end of a corridor—to avoid through traffic.
- When rooms are large enough to prevent contact among persons, and observation galleries are planned with separate entrances, keeping observers outside of the operating room.
- When provision is made for air purification and destruction of air-borne bacteria in operating rooms by mercury vapor lamps which radiate ultraviolet rays.
- When the obstetric division is in a separate building or otherwise suitably separated from other clinical divisions.
- When there are provided suitable isolation quarters for labor and delivery of "suspected" or infected mothers, and four nurseries for "suspected," infected, premature, and normal infants.
- When provision is made for a desired number of "separation" rooms to isolate patients suspected of or having infectious diseases.
- When the medical, pediatric, and surgical divisions are suitably separated.
- When cubicles, especially in children's wards, are planned.
- When wards are not too large (those of four beds are preferable).
- When ample space—not less than three feet, preferably four feet—is provided between beds.
- When windows and doors are considered from the standpoint of their relation to beds, aiming at provision of sunshine, light, and ventilation without drafts.
- When observation units, especially for newly admitted children, are provided.
- When the equipment is carefully selected and properly installed, defects early detected and speedily corrected (especially sterilizing equipment and water stills).
- When piping and plumbing fixtures are installed in a manner to eliminate contamination by back syphonage.
- When the laundry equipment thoroughly cleanses soiled linen and sterilizes such infected linen as requires sterilization.
- When hidden dirt sources are eliminated, and construction materials are used which can readily be kept clean.
- When planning and construction aim to achieve sanitary conditions and efficient and controlled natural and mechanical ventilation.

Fire and Explosion Hazards

The satisfactory hospital is built of structural materials which make it fire resistant. In general, steel construction, steel shelving, and steel furniture are safer than wood. Ventilation systems can be a fire hazard, unless properly constructed and kept clean. Plan and construction consider all possible origins of fires, and provide safeguards so that when a fire does occur, it can be easily and quickly controlled at its source, and other parts of the building easily and quickly shut off from fire and smoke. Corridors, exits, stairways, and elevators are made suitable for transporting patients and beds to safe areas when the fire becomes extensive and threatens their safety. Fire gongs for interior signaling of the location of the fire and wire connections for communicating with the fire de-

partment are essential. Sprinkler systems in designated places, such as storerooms, laundry, repair and paint shops, pharmacy, and other places where inflammable materials are kept, should be installed.

The most important causes of explosions are vapors and gases from anesthetics. Conduits, electric wiring, fixtures, switches, and outlets, when properly installed, located, and made explosion-proof, lessen the danger of gas explosions. Controlled humidity, especially when raised, decreases the possibility of explosions. Anesthesia and surgical operating rooms should be carefully grounded. Gas jets are no longer needed in the surgical operating suite, and electric cautery should be used with caution.

Accidental Injuries

Slippery floors are the most frequent causes of injury to patients, personnel, and visitors. Getting in and out of bath tubs is another cause. Absence of night lights is a third cause. All of these causes, and many others, can be eliminated by proper planning and construction.

When planning and construction are guided by knowledge of the tasks to be performed, when equipment is carefully selected, properly installed, and periodically checked for performance, and when hospital activity moves in a calm and seemingly leisurely manner and at the same time is serious, painstaking, and expeditious—the safety of the patient and those who serve him is reasonably assured.

FATIGUE ELIMINATION

Paradoxically, the hospital, a place for therapeutic rest, often affords little rest for the nurse.

The knowledge and experience of the observant and proficient head nurse, who

understands the nurses' manifold tasks and knows the causes of fatigue in nurses, can contribute considerably to hospital planning.

It is generally known that accidents increase when workers are tired. Women are more subject to fatigue. This is attributed to the delicacy of their skeletal frames and muscles, and to the special physiological aspects of the sex. It has been established that women should not lift bodies heavier than half their weight. Fatigue sets in when activity requires radical and frequent departure from the usual erect or sitting positions, such as stretching, or crouching to reach an object, excessive pushing or pulling, running, or long standing.

The normal performance of nursing duties under normal conditions, by a healthy nurse, should not be fatiguing. Under abnormal conditions, she does tire. There then follows a decrease in promptitude; willingness wanes and tension increases. A tired nurse is like a tired child. She is irritable, and tolerance to seemingly unreasonable demands of patients is wanting. She may even have the extreme experience of William James, who said of himself: "In my own case, something like this occurs in extreme fatigue . . . consciousness dwindles to a point, and loses the intuitive sense of the whence and whither of its path."

In a paper on fatigue resulting from attending motion picture theatres, Savin includes among the causes of fatigue, bad vision, faulty distance, uncomfortable seats, excessive concentration, tiring sounds, and bad ventilation. In another paper on museum fatigue published about fifteen years ago, Gilman says: "As at present installed, the contents of our museums are in a large part only preserved, not shown." He depicts the conditions ". . . resulting from the type of museum case and of museum

installation widely accepted as standards among us." He further says: "After a brief initial exertion he (the sightseer) will resign himself to seeing practically everything imperfectly, and by a passing glance." He advocated "... radical changes in our methods of exhibition. . . ."

An editorial, based on Sayer's review of the subject, states that physical fatigue "... may be temporary, subacute, or chronic. Temporary fatigue is a normal feeling of tiredness that passes away after a short rest and allows a resumption of original work without decrease in efficiency. Subacute fatigue may result from continued activity at the same intensity until energy reserves are depleted. This condition, if unchecked, may become chronic. Chronic fatigue, the final stage of a series of events which begins with overwork, may end in disabling illness. Fatigue may be local or general. Local fatigue affects particularly the muscles that have been employed most actively. General fatigue affects the whole body and frequently results from such conditions of work as excessive hours, curtailed periods of rest and insanitary, uncomfortable or hazardous surroundings. Any type of chronic fatigue may affect the health or liability to accidents of workers and consequently volume or quality of plant output as well."

These references are quoted as examples from other fields which, with modifications to suit the peculiar setting of hospital buildings and organization, are applicable to the hospital. Such, and many other problems related to the physical aspects of hospitals, constitute industrial health problems, not the least of which is fatigue. For in the hospital, as in industry, good working conditions eliminate many causes of fatigue and thereby lessen the incidence of illness and accidents in workers, and keep

the number of personnel available for given tasks at normal level, thus reducing maintenance costs; reduce the turnover of employees, thereby lessening the need of training new workers; increase the feeling of well-being among workers, resulting in proper attitudes and efficient performance.

The causes of fatigue may reside within the nurse herself—her health, her diet, her general mode of living, her shoes and clothing, her hours of work—and in the ratio of the number of nurses to the number of patients. But these factors, important as they are, lie outside of the present discussion. Here the concern is with physical conditions under which nurses work within the hospital building, such as temperature, humidity, odors, ventilation, light, noise, floor-walking distances, hardness of flooring, location, quality and quantity of equipment; location, size, height of shelving and cupboards for supplies; size and measurement of work benches, desks, and chairs; cafeteria service as against waiter service; whether rooms are planned for group nursing and free access to beds without requiring the nurse to pull the bed out for service to the patient, and availability of suitable residence and recreational facilities, and nearby comfort stations and rest rooms.

Physical defects in planning, construction, and equipment which cause fatigue are often irremediable after the hospital has been erected. But when these elements are carefully considered while the hospital is being planned and specifications are being drawn, and, moreover, when the nurse is given the opportunity to impart to the hospital planners her experiences and knowledge concerning them, there should result a structure that will lessen if not entirely eliminate physical defects inducing fatigue.

4. Notes on Hospital Planning, by *The Hospital Facilities Section, U.S. Public Health Service, Federal Security Agency**

In many years of study of hospital planning the Hospital Facilities Section, U.S. Public Health Service, has accumulated a rich store of information, which is freely available to architects, consultants and hospital administrators. . . . Marshall Shaffer and his staff of hospital architects stand ready to offer advice and concrete suggestions on preliminary plans for specific institutions, and check them for conformance with recognized standards, but obviously the final plans must be individually developed for the given local conditions, the chosen site. Actual planning of each hospital must of necessity remain the function of architects and consultants who know local needs.

The presentation given below is a condensation of a book-length manuscript on the general hospital. . . . If, then, the text seems disconnected in spots, blame it on the urgent necessity to treat more thoroughly the less obvious do's and don't's and wherefore's.—The Editors of Architectural Record

THE HOSPITAL SITE

Orientation and Exposure. The site should be chosen with consideration for proper orientation of the structure so that every patient's room will receive sunlight at least during a part of the day, and proper advantage should be taken of prevailing winds in the interest of natural ventilation.

The most advantageous orientation will vary in different latitudes and in different sections of the country, but normally the areas occupied by patients in the north temperate zone should face the south, southeast or southwest.

An ideal site in northern latitudes would permit the placing of the administrative offices, the out-patient department and the service departments on the northerly and street side of the property, and the nursing areas on the southerly and quiet side of the property, facing areas which do not promise future encroachment.

Dimensions. The minimum size of a plot for a multi-story 50-bed hospital probably should not be less than 300 by 300 feet, if adequate provision for expansion is to be made. In any case, the plot chosen should

allow for future expansion of at least 100 per cent in building area, reserving enough space for attractive grounds and avoiding the appearance of overcrowding. Thought should also be given to the possibility of subsequent provision for communicable disease, psychiatry and other special services.

On the other hand, too large a plot results in costly upkeep. Recreation areas are not required for patients of general hospitals, but some provision is necessary for tennis courts and other recreational facilities if nurses or interns are to be housed.

Sufficient space must be available to accommodate the various traffic lines coming to the institution, and ample parking areas provided. Some cities, for instance Los Angeles, require parking space for one automobile for every two patients. The new hospital, if at all possible, should be built at some distance back from the sidewalk line.

* Adapted from *Architectural Record* 100:35-54, Aug. 1946. A more detailed presentation of the material appeared in an article entitled "Planning Suggestions and Demonstration Plans for Acute General Hospitals," with text by Neil F. MacDonald and plans by Marshall Shaffer, in *Hospitals* 17:33-68, July 1943.

Within limits, the farther back the building is located, the better.

Topography and Landscaping. Ideally, the building is best located on relatively high ground in order to take advantage of natural drainage. The elevation should not be so great, however, as to be a handicap to ambulant patients who approach on foot. The plot should be such that it will permit the patients' entrances to be close to ground level. A slope toward the rear, so that the natural grade will permit basement service entrances to be at grade level, will be of considerable advantage.

The nature of the adjacent areas should be considered. Location opposite a public park, provided the park is not noisy, is advantageous since it insures against future encroachment of unsightly buildings from that direction. The psychological effect of attractive grounds on patient welfare, public good will and staff morale cannot be overestimated.

Water Supply. While the quantity of water used in a hospital will vary within wide limits, 200 gallons per bed per day may be taken as the average yearly figure. However, the supply should be adequate to furnish twice this amount on a maximum day.

If the location is such that a private water supply must be developed, the available ground water or other source requires complete and careful study. The chemical and bacteriological quality as well as the quantity must be considered. In this type of installation a supply that will be satisfactory with no treatment is highly desirable. A competent sanitary engineer should be retained to advise on the sanitary features of the installation, and the plans approved by the State Health Department. *Public Health Service Drinking Water Standards, The Sanitation Manual for Public Ground Water Supplies, and the Report of the Joint*

Committee on Rural Water Supply Sanitation are suggested as guides to those concerned with such a development.

THE HOSPITAL BUILDING

The present trend in design is toward a compact, multi-storied plan, since such a structure is less expensive to build, operate and maintain. There are numerous advantages in a single-story plan for the small hospital of less than 100 beds, although local factors may make this impractical. Whatever the plan, provision for future expansion demands thoughtful consideration. The construction of the building should, of course, be as fire resistant as is possible.

As a guide for the allocation of areas to the various functions and services in the hospital, the Hospital Facilities Section has prepared areas allocation charts (see summary on p. 568). In considering the areas shown in these tables, it must be borne in mind that while the areas listed represent acceptable practice and are based on general experience, conditions in specific institutions vary and hence the areas specified may be varied within reasonable limits.

It is to be noted particularly that the area distribution charts do not include provision for out-patient services or health center facilities, these being regarded as entirely separate from the areas for the in-patient services supplied by the hospital. If an out-patient service or health center is contemplated, its areas must be added to that of the hospital proper. The percentage areas given in the charts apply only to that portion of the building devoted to in-patient service.

Space for certain functions will be required in all general hospitals; namely, administrative, service, patient, operating suite, obstetrical suite, laboratory, radiology and emergency room areas. A drug room will also be required. It may be extremely

modest with regard to space and equipment, or it may include provisions for compounding and manufacturing.

There is a growing demand for physical therapy departments in all sizes of hospitals and local needs and clinical practices must determine the amount of space and equipment to be devoted to such a unit.

An out-patient department may or may not be indicated, although most hospitals find that sooner or later such services are necessary if they are to fulfill their complete community responsibility. There may or may not be provisions for communicable disease treatment or psychiatry.

A health center containing space for clinics, offices for health officers, sanitary engineers and public health nurses and possibly offices for private physicians and dentists may or may not be included, but is highly desirable for the coordination of health activities.

Today's trend is to make the hospital the real health center of the community. Because of the many possible variations in the needs of individual communities, and in the individual specialists available for the staff and hence of specialties to be represented, it is difficult to designate exact requirements that would be applicable to more than one specific hospital. Nevertheless, the broad requirements of the average small hospital can be outlined with reasonable definiteness, and these requirements will be discussed in some detail.

Throughout this text attention has been called to the sanitary aspects involved in the construction of a hospital and in hospital equipment. Due consideration should be given these factors in designing the building and specifying equipment. Because of the nature of the institution, the inhabitants of a hospital are, for the most part, in a weakened condition and unusually susceptible to infection. Therefore,

every possible safeguard must be incorporated in the design in order to reduce the possibility of cross-infection.

Exterior Traffic. Throughout the planning of the hospital, traffic requires careful thought. Besides the various complicated lines of traffic within the hospital, traffic to and from the hospital must be given consideration.

The latter includes: (1) patients arriving or leaving by automobile or ambulance; (2) patients arriving or leaving on foot; (3) the visiting public, who should have adequate parking space; (4) staff members, who should have a convenient parking area reserved for their exclusive use, if practicable; (5) controlled ingress and egress of employees, with proper facilities for parking; (6) incoming supplies; (7) removal of the dead in an unobtrusive manner; (8) delivery of fuel and removal of refuse and ashes if coal is used; (9) out-patient traffic, if an out-patient department or health center is contemplated.

In order to take care of these traffic lines, certain entrances must be provided. The main entrance in most hospitals will receive ambulant in-patients, whether arriving on foot or by car; physicians, if their reserved parking area is convenient to that entrance and their locker room is properly located; and visitors.

An emergency entrance designed to permit reception of nonambulatory patients from cars and ambulances, and leading directly to the emergency suite, will be required.

A third entrance with proper facilities for unloading will be needed for supplies and should be in close proximity to elevators, to storage areas and to the kitchen refrigerators. Nonprofessional employees of small hospitals may use this entrance if it is adequately controlled, but in larger hos-

pitals a separate entrance for such employees is generally provided.

Usually a fourth entrance is provided for the removal of bodies. This entrance should be kept locked unless it is also to be used as the employee entrance. There should be only one entrance, however, for nonprofessional employees, and the employee locker rooms as well as the employee time and attendance control system should be convenient to it.

Finally, if there is an out-patient department, a separate entrance must be provided for it. The number of exits or entrances should always be held to a minimum, however, especially if unsupervised.

Interior Traffic. Within the hospital are other complicated traffic lines to consider. Here, some crossing of traffic streams is inevitable. Orderly internal traffic is facilitated by correctly relating facilities and services.

The main traffic streams are: (1) in-coming patients, who must proceed from the admitting and social service departments to the patient areas, emergency room, x-ray department or other services; (2) out-going patients, who leave the hospital usually by way of the business office or the social service department; (3) interdepartmental patient traffic; (4) deceased patients who must be taken direct to the mortuary in as unobtrusive a manner as possible; (5) visitors, who should be under surveillance to and from patient areas and during their entire stay in the hospital; (6) staff members, who ought to be routed past the record library and the physicians' in-and-out board; (7) out-patients, if any, who may be routed to the laboratory, pharmacy, x-ray, physical therapy units or other services in the hospital area proper; (8) employees, who must be routed past their time control station and locker rooms before being allowed in the hospital proper; and (9) sup-

plies, foods and wastes, which must be as completely separated from all patient and visitor traffic as possible.

CIRCULATION SPACE

The area required for circulation space will vary with the type of building and the number of stories.

Corridors. Corridors throughout the hospital should have a minimum width of 7 feet, 6 inches, and preferably 8 feet. They require acoustic treatment. Wall finish should be smooth and washable and finished in light attractive colors. Finished ceiling height will be the same as other areas, 9½ feet being desirable. In the main kitchen and laundry 12-foot ceilings are considered minimum.

Lighting should be by ceiling fixtures. Indirect, fluorescent or cold-quartz lighting should receive serious consideration and study. Night lights and electrical outlets for cleaning machinery should be installed at convenient places; electric clocks so as to be easily visible. Call system installations should be provided as required. Since vacuum outlets or machinery will be needed in operating rooms and laboratories, consideration may be given to the installation of master vacuum pumps in the mechanical section to supply ducts opening in corridors as well. Such a system will facilitate cleaning, and although the original cost may appear excessive, maintenance probably will not exceed that of multiple machines.

An adequate number of fire extinguishers should be recessed in the corridor walls.

Ramps. Where ramps are required, as in connecting a new and old building, or at the ambulance entrance, the slope should not exceed 5 per cent.

Stairways. The number and location of stairways is usually determined by local ordinance, with due consideration for traffic demands. Many states require hospitals

with more than 100 patients on a floor area of 2,500 square feet to have at least two continuous runs of stairs. Completely enclosed fire stairs are preferable, whether or not required by local ordinance. They should be at least 3 feet 8 inches wide to permit the carrying of stretchers, with special caution taken to insure sufficient width at the turns. Standard treads and risers, without winders, are used.

Elevators. It is preferable to have elevators adjacent to each other rather than widely separated. If more than two elevators are provided, the separation of service and passenger types is desirable. Elevators should have a minimum size of 5½ feet by 8 feet in order to take a bed or stretcher with attendants, and be equipped with dual controls, self-leveling devices and all safety features. It is advisable to install a telephone in each elevator for emergency purposes.

Doors should have openings of not less than 3 feet 8 inches. Office building and apartment-house type doors are not satisfactory for hospital usage. It is advisable that elevators do not open directly on a nursing corridor. In larger hospitals one car may be designed with doors at both ends so that it may be used from a service corridor during certain hours and for passengers at other times of the day.

In locating elevators, special consideration should be given to the flow of traffic. Multi-story hospitals of 125 beds or less will require a minimum of two elevators, and those having from 125 to 200 beds, three elevators.

Elevators need acoustic treatment and resilient floor surface material.

ADMINISTRATION DEPARTMENT

The administrative offices are grouped in the area adjoining the main lobby and main entrance. Certain sub-groupings should be considered, so that each unit within a sub-

group will be conveniently located with reference to each other unit in that sub-group.

For example, the administrator's office, the secretary's office, the office of the director of nurses, the general business offices, and the toilet facilities for the administrative staff form one sub-group of the administrative facilities, each unit of which should be convenient to each other unit.

Other sub-groups include: the main lobby and waiting room, the information desk, the cashier's window alcove and the public toilets; the admitting office and the social service office; the medical record room and that section of the staff room intended for the record study; and the staff room, locker room, library, and conference or board room. Many hospitals have also found it desirable to provide a separate small waiting room in this area for the use of distraught relatives.

Medical Record Room. The medical record room should be accessible from the admitting office and the out-patient department. It may well adjoin and control the entrance to the staff locker room, and should have convenient access to the inactive record storage room below, possibly by a spiral staircase. Space should be available either in the record room or in the room used by staff members for completing their medical records and for reviewing microfilmed records if that system is contemplated. In larger hospitals it may be necessary to provide a pneumatic tube or other device to convey records to and from the nurses' stations, admitting room, out-patient department and emergency room.

Library and Conference Room. If interns are to be trained at the hospital, a library is required. In the larger hospitals, a separate library and conference room should be provided. It is advantageous for this to adjoin the medical record room, thus serving the double purpose of furnishing a

control for the library books and space for staff members to consult records without removing them from the supervision of the medical record librarian. The library should have adequate shelving and provision for unbound periodicals. In smaller hospitals a combination board room, staff conference room, and medical library may be arranged in conjunction with the administrator's office by the use of accordion doors, thus enabling the total space to be made available for large meetings. If part of this space is used for a library, built-in shelves should be provided; if it is used for the conference room, a screen and other equipment for motion picture exhibitions and two built-in x-ray view boxes should be installed. If library space is not furnished as suggested above, it should be provided for in the staff lounge or in a record study adjacent to the record library.

Communications Systems. In larger hospitals it is highly desirable to separate the telephone service from the information desk and to restrict the operator's duties, during the day at least, to communication service. It is often possible to locate the switchboard so that it is shut off from the public during the busy hours of the day but, by opening a wicket, can serve as the information desk at night.

In hospitals where the information desk and switchboard are not separated, it is advisable to arrange them so as to permit two employees to function during visiting hours.

The information desk should be furnished with the standard information equipment, including the doctors' in-and-out register, the patients' index, and the room register.

The intercommunicating telephone system should connect all work areas and may be entirely automatic. It will also serve as a general fire signal.

The paging control equipment, unless automatic, will be adjacent to the switchboard. There are three types of such equipment, each of which has its advocates. Lights have the very distinct advantage of silence, but are objectionable because they cannot be seen from every point at which the staff or employee will be located. The voice annunciator eliminates the latter objection and for that reason appears to be preferable. However, it must be properly adjusted to obviate raucousness in the paging voice. Probably the most economical and efficient of the three types is the automatic system which is combined with the intercommunicating telephone switchboard and signals by soft chimes.

The central radio control panel will also be located in the vicinity of the switchboard. Such a system is almost a necessity in the hospital of today and the building should be wired for antennae and ground. Distribution circuits will be included in the nurses' call outlets at the patients' bed-sides where under-pillow, rubber-encased listening devices can be connected. Loudspeakers are not indicated except in the kitchen, laundry, or other employee work areas, for convenience and reception of announcements, and here only if they will not be disturbing to patients. The central radio panel permits choice of programs, records, announcements and control of hours of operation.

PATIENT ACCOMMODATIONS AND NURSING SERVICES

Determination of the expected distribution of patients will require a special study in each instance. Normal expected distribution might be seriously affected by the presence in the community of a specialty hospital, such as a maternity or children's hospital, or by the presence of recognized

specialists on the staff of the proposed hospital or of other hospitals in the area.

Studies have indicated that normal distribution of patients in general hospitals might be expected to be: surgical, 45-50 per cent; medical, 20-23 per cent; obstetrical, 12-25 per cent; pediatric (other than newborn), 4-6 per cent; miscellaneous (including eye, ear, nose and throat), 9-15 per cent.

Since bassinets for newborn infants are not included in the hospital bed count, these do not appear in the percentages given. Space for bassinets, however, is included in the area allotments. Nursery facilities for newborn infants (including suspect cases) approximately equivalent to 140 per cent of the number of maternity beds will be required.

The size of the nursing unit is limited by the number of patients that one nurse can care for at night and will normally consist of approximately 25 beds if including one-, two- and four-bed rooms; of approximately 30 beds if including no one- or two-bed rooms; and of approximately 20 beds if composed entirely of one-bed rooms. In small hospitals there should be one-, two- and four-bed accommodations in each nursing unit in order to facilitate nursing service. This makes for the flexibility necessary to group patients on a basis of their medical or surgical conditions.

In allotting beds, unless there is a definite local reason for not doing so, it is well to adhere to the customary relationship of about one-third of the beds in one-bed rooms, one-third in two-bed rooms and one-third in four-bed rooms. A number of one-bed rooms should be designed to permit accommodation of two beds in emergencies. It is not considered feasible to have rooms of more than four beds in hospitals of from 50 to 200 beds, due to the impracticability of proper segregation of age, sex, race, and

medical or surgical conditions in rooms of larger size.

Each nursing unit will contain patient accommodations (included in the "bed area") and those auxiliary nursing facilities required for proper operation. The auxiliary facilities required in each nursing unit include the nurse's station, a solarium, two toilets, a bath, two bedpan rooms, a utility room, a flower room, a linen closet and a supply closet. Isolation facilities should be furnished for each unit, but should be arranged so as to be available for other patients when not needed for isolation.

In addition to the facilities needed for each nursing unit, certain other facilities will be required on each floor to serve the nursing units on that floor. These will include a visitors' room, a floor kitchen, a stretcher closet, attendants' toilet facilities, a janitor's closet and a treatment room. A nurses' lounge may be considered if the type of patients expected warrants extensive use of private duty nurses. Those designated auxiliary facilities for the nursing units, however, must be so located within each nursing unit as to require maximum travel of not more than 80 feet to serve patients, and those designated for floors must be centrally located on each floor.

Besides the use of acoustic treatment in areas where noise is expected, structural methods should be used which tend to eliminate sound transmission through floors and walls. Friction hinges or other devices should be used to prevent the slamming of doors.

Doors in patients' areas must allow a full opening of at least 3 feet 10 inches in order that beds may pass through. Even with this width, they should be hung on offset hinges or the hinge edge should be protected by a metal strip or otherwise. Arm hooks, with hooks pointing downward, should be used on doors of patients' rooms.

Vision panels are indicated for doors of isolation and psychiatric rooms and for all double-acting doors. The latter also need push and kick plates. The use of satin finish hardware to prevent glare is suggested.

The arrangement of all beds parallel to exterior walls and windows obviates glare from windows and the undesirability of facing an interior wall with no opportunity to look out of the window.

Lighting in patients' rooms should be indirect. Bright ceiling lights should not be used. Reading lights, nurses' call buttons, electric and radio outlets, and a night light which is so located as not to be directly visible to the recumbent patient and which can be switched on from the doorway, should be provided. All switches should be of the silent mercury type.

Even with the rapidly increasing use of artificial lighting and air conditioning, natural ventilation and lighting will be required for many years, both for psychological and for financial reasons. While exact window area requirements will vary with climate, building and window design, the average will be 1 foot of window area to each 3-4 square feet of floor space. Space from the top of the window to the ceiling should not exceed 12 inches. Sill height of 3 feet is recommended to permit an outside view from the patient's bed. The sill must be of substantial material, since it is common practice to place items such as flowers on it, and for this reason, as well as for protection against the elements, it should be finished to withstand water, stains, and other damage.

One-bed Rooms. A few one-bed rooms should be equipped with baths, as there will be a need for such so-called "luxury suites." The furnishing of a private bath for each room, however, is regarded as unnecessary, although as many private toilets as funds and space will allow constitute a conven-

ience for many patients and a saving in nursing time. Showers will be substituted for tubs in the maternity section. For safety reasons, it is not considered advisable to place showers over tubs for use by patients.

It is advantageous to furnish at least one of the one-bed rooms in each nursing unit with acoustic treatment for use as a quiet room, selecting a room removed from traffic and the noise of utility facilities. It is desirable to have a view window between this room and the corridor so that the nurse may observe the patient without entering the room. If this is installed, a draw curtain should be provided so that privacy may be secured when required.

Wherever possible one-bed rooms should be of such size as to accommodate two beds in emergencies, thus furnishing flexibility in the capacity of the hospital. Since these rooms may be used for two beds in such emergencies, the wall outlet for the nurse's call button and convenience outlets should be equipped for two signal-cords and so located as to be convenient to both beds when the room is used for two patients.

The minimum floor area for any room should be not less than 100 square feet. The minimum floor area for any room with an additional emergency bed should be not less than eighty square feet per bed. The suggested minimum width for any room intended for patients' use is 11 feet 6 inches. Provision of dressers, as is usually desirable, will require an increase of this figure to at least 12 feet.

Two-bed Rooms. Two-bed rooms should be provided with cubicle curtains, but otherwise similar to one-bed rooms.

Four-bed Rooms. Four-bed rooms should be similar to those discussed above, including cubicle curtains and a lavatory.

Pediatric Nursing Unit. There will normally be no occasion for a separate pediat-

ric unit in small hospitals, these cases being cared for in one- or two-bed rooms. In larger hospitals, where the patient load permits, rooms should be arranged especially for care of children.

Isolation Suite. Isolation rooms may be arranged in pairs with a single sub-utility room between. The sub-utility room requires no equipment other than a sink with drainboard and a utensil sterilizer.

Each isolation room should have a toilet with bedpan flushing attachment, a lavatory with knee action control and a hook strip for gowns near the corridor door. Otherwise the rooms are the same as ordinary nursing rooms and may be so used when not required for isolation.

One isolation suite should be provided for each nursing unit. It is advisable to locate it either at the end of the corridor or off a sub-corridor. By placing one bedroom opposite the isolation suite, additional isolation beds are available when needed, all to be served from one sub-utility room.

Psychiatric Rooms. Even though it is the policy of the hospital not to accept psychopathic patients, there should be available, in case of emergency, at least one stripped room in the hospital for such patients. One of the isolation rooms may be designed for this purpose.

The room should have enclosed radiators, flush lighting fixtures, no exposed piping, no plumbing fixtures. Windows should be of the detention type. The door should open into the corridor, should be locked from outside with no hardware inside and should have a vision panel of shatterproof glass. Electric switches and thermostatic heat control should be outside the room on the corridor. Acoustical treatment is required.

Nurses' Station. A nurses' station is necessary for each nursing unit, and should be so situated as to save as many steps as pos-

sible. It should be open to the corridor, perhaps with counter or rail separation. These stations should preferably be located where visitors entering by stairs and elevators can be controlled.

In larger hospitals where there is more than one nursing unit to a floor, the nurses' station will be centrally located in the nursing unit, and a floor supervisors' station will command the visitors' entrance.

Acoustic treatment is necessary. In hospitals that are provided with pneumatic tube systems, connection with the medical record room may be supplied. A dumbwaiter to the central supply room may also be desirable.

Utility Room. The utility room should be centrally located in each nursing unit. It should be noted that the utility room suggested is not intended for bedpan cleansing or sterilization, or for the sterilization of such supplies as are expected to be furnished by the central supply room. Acoustic treatment of this room is necessary. A 3 foot 10 inch door with vision panel is required.

Floor Pantry. If central tray service is used, the floor kitchens will have only minimal equipment, and will not need to be equipped for setting up trays. They should be in locations that permit dumbwaiter service from the main kitchen. If decentralized tray or bulk food service is contemplated, a larger area than that suggested in the area table on page 568, and additional equipment, will be required.

Solarium. A solarium at the end of each patient wing is highly desirable. It should be so arranged as to be available for utilization as bed space in emergencies.

Consultation Room. It has been found highly desirable to have a small room on each floor where attending staff members can retire for consultation and conferences with physicians, patients or patients' fami-

lies. Such a room would require space for a desk, chairs, bookcase, locker, lavatory and house telephone.

Visitors' Room. A visitors' room for each floor is highly desirable. It should be located close to stairs and elevators, and should be under control from a nurses' station. In larger hospitals where the maternity service is heavy, it is considered good practice to provide a special waiting room for prospective fathers. Such rooms should be equipped with a public telephone and acoustic treatment. Convenient toilets and lavatories are desirable.

Flower Room. Space should be provided for a much needed workroom for handling flowers. This feature has been too often omitted in hospitals.

Toilets, Baths, and Bedpan Units. Each nursing unit will be furnished with centrally located toilets, bathroom and bedpan unit. The toilets should be arranged with doors opening out and may be provided with nurses' call buttons. Two separate toilets for patients should be provided for each 25-bed nursing unit. Acoustic treatment is advantageous in toilets.

The bathrooms should be provided with tubs or, in the case of maternity and isolation units, with stall showers. Showers over tubs are considered unsafe for patients. Actually, few patients take tub or shower baths in general hospitals. In addition to private facilities one bath should be provided for each nursing unit.

Since separate bedpan units are to be supplied, facilities for disposal and bedpan washing will not be required in the toilet rooms.

Closets—Linen, Supply, Stretcher, and Janitor's. One linen and one supply closet will usually be required for each nursing unit. One stretcher closet and one janitor's closet on a floor will usually be sufficient.

SURGICAL DEPARTMENT

It is important that the operating suite be completely isolated from the rest of the hospital, and so located that there will be no traffic through it. Hence it should be located either on a separate floor or in a separate wing with convenient access by elevators to patients' areas.

Operating Rooms. Approximately half the patients admitted to a general hospital require surgery. Since approximately 3,600 patients would be admitted annually, an average of ten each day, the average 100-bed hospital will need facilities for three to five operations daily. Assuming that preparation of the room, performance of the operation and cleaning processes would require an average of three hours, it is improbable that a particular operating room would be used more than twice daily. This is caused by the fact that the surgeons prefer operating in the mornings only, and the majority of them schedule office hours, consultations and other commitments for the afternoons.

Hence, the average 100-bed hospital will require two major and one minor operating rooms, one cystoscopic and one orthopedic room. Except in the unusual circumstances discussed above, as the hospital increases in size, one major operating room will be necessary for each additional 50 beds. It must be noted, however, that for the very large hospitals a close analysis of types of patients is indicated, as a shift in percentages or emphasis upon another type of patient will materially affect requirements. The desirable minimum size for operating rooms is 18 by 15 feet.

Even in the small hospital there should be a minimum of one major and one minor operating room, although there is little difference in the two units. In very small hospitals it may be impossible to provide more

than one operating room, and minor surgery may be performed in the emergency room, but otherwise at least two operating rooms should be provided.

Operating rooms are best arranged in pairs, with scrub-up and sub-sterilization facilities between each two. Orientation of operating rooms is not important, since artificial light will be used. Glass skylights and large windows for north light are no longer considered necessary.

Unless the institution is a teaching hospital, observation galleries will not be required. Where supplied, access should be other than through the operating room. Glass separation from the operating area is usually indicated.

One operating room should be equipped with light-proof shades for special eye or other dark-room surgery. Unless a special orthopedic room is furnished, either the emergency room or one of the operating rooms should have a plaster sink.

Air conditioning is recommended. Equipment should be such as to maintain an 80° temperature and a minimum of 55 per cent relative humidity with no recirculation of air. In smaller hospitals explosion-proof unit air conditioning may be used.

In all areas where anesthetic gases are used, special provision is necessary to guard against the explosion hazard. Spark-proof electrical equipment, conductive flooring (such as cupric oxychloride cement, conductive asphalt tile, conductive linoleum, or conductive rubber) or whole alloy or brass strip grids on 4 inch centers with terazzo or tile flooring must be provided. Tile floors with zinc filings in the cement mix have also been used.

All equipment must be grounded. The electrical equipment will include explosion-proof switches, guarded light bulbs, and inclosed motors and rheostats. All electrical outlets must be at least 2 feet above the

floor. All operating room areas should have non-glare walls tiled to a minimum height of 6 feet, and preferably to the ceiling.

Cystoscopic Room. This room, if installed, may be provided for in the operating suite area, where continuous surgical supervision can be given. Since it will be more or less remote from the radiology department, portable x-ray apparatus is required.

Fracture Room. In hospitals of 100 beds or more a special fracture room is needed. This may be in the emergency area or surgical suite, the latter being preferable. Fixtures are explosion-proof, as anesthetic gases will be used. Light-proof shades are required.

Splint and Plaster Closets. Adjoining the fracture room it is desirable to have a splint closet and a plaster closet.

Sub-sterilizing Rooms. Adjunct sterilization facilities will ordinarily be located between each two operating rooms. Direct access from each operating room and the corridor is desirable. The water sterilizers and pressure sterilizer should preferably be built in. No storage space is required. A blanket warmer may be desired, but indications are that the electrically heated blanket will replace this item.

Scrub-up. Scrub-up facilities should be supplied for each pair of operating rooms, allowing three sinks for each pair of operating rooms. A glass view window between the scrub-up sink area and the operating rooms is frequently advantageous.

Clean-up Room. One clean-up room for the surgical area is sufficient. It is located close to operating rooms.

Laboratory. In hospitals of 100 or more beds, a small space may be required for frozen-section examination. The space may have fixed equipment, or a portable truck with necessary equipment may be brought from the main laboratory. In addition to

equipment for frozen sections, a small sink and work counter may be provided.

Instrument Room. In the very small hospital a separate instrument room may not be required, built-in cabinets in the corridor or central supply room usually being sufficient. In hospitals of 100 or more beds a special instrument room is almost a necessity, the minimum width being 8 feet and the area about 150 square feet. For each additional operating room 30 to 50 square feet should be added.

Anesthetics Equipment Room. A special fireproof room is necessary for the storage of ether, anesthetic gases and anesthesia equipment. This room should be convenient to the operating rooms, but open upon the corridor. It requires ventilation, either natural or artificial, and other specifications to comply with local fire ordinances. Radiators should be omitted. A small amount of shelving is needed.

Corridor. A special blackboard for scheduling operations should be installed in the corridor, in addition to a standard bulletin board. Telephones may be needed. Fire extinguishers should be recessed in the wall in this area.

Stretcher, Storage, and Janitor's Closets. A stretcher closet to accommodate one stretcher for each major operating room is necessary. A storage closet is needed for extra operating room equipment and attachments. Shelving should be provided with the lowest shelf not less than 4 feet above the floor. This permits heavy equipment to be stored below the shelving. Whether or not there is a janitor's closet elsewhere on the floor, a janitor's closet should be furnished in the operating suite area.

Doctors' Locker Room. The doctors' locker room is best situated at the entrance of the surgical suite. It should be attractively furnished with tables and chairs.

Nurses' Locker Room. The nurses'

locker room may be included in the surgical suite, since the nurses will not be in street clothes when they arrive.

Surgical Supervisor. In the small hospital, desk space off the operating corridor may be set aside for the surgical supervisor. In larger hospitals a separate office will be required, so placed as to control the department; additional space may be provided for a medical stenographer.

Central Sterilizing Room. The areas suggested for the operating suite include a central sterilizing room, which serves the entire hospital. The central sterilizing and supply service prepares, sterilizes and assembles all supplies for use wherever needed. The concentration results in a saving of equipment, time and supplies, and permits a higher standard of work on the part of skilled personnel.

The sterilizing room is best located at the entrance to the operating suite. This is usually a central location with respect to the other departments to be served and also permits the operating room nursing staff to help in the preparation of supplies during their free time. The space is divided into three distinct areas which may or may not be physically separated: (1) work area for receiving and cleaning unsterile material and for assembling packs; (2) sterilizing area; (3) supply area for storing and issuing sterile supplies. In addition, it is desirable to provide (adjacent to the work area if possible) a room for the storage of unsterile supplies.

A dumbwaiter connection between the central supply room and other floors is suggested to cut down traffic to the operating floor.

OBSTETRICS DEPARTMENT

From 12 to 20 per cent of the patients in the average general hospital will be maternity cases. The nursing accommodations

will be the same as for other types of patients except that there may be increased provision for toilets and showers.

The nursery and the delivery room should be as far removed from each other as the limits of the obstetrical department will permit, since the large number of visitors to the view windows of the nursery would be a potential danger if permitted near the delivery area. Isolation facilities for about one maternity patient in each 15 are imperative.

Labor Rooms. Labor rooms are needed in the approximate ratio of one labor room for every 10 maternity beds and should be adjacent to delivery rooms. They follow the general type of patient's room.

Delivery Rooms. Delivery rooms should be provided in the approximate ratio of one delivery room for each 20 maternity beds or less, regardless of how small the hospital. These will be essentially similar to operating rooms in design. In larger hospitals one of the delivery rooms should be equipped for major operative procedures.

In general the facilities in the obstetrics suite are similar to those in operating rooms—scrub-up, sub-sterilizing, clean-up, supply closet, supervisor's office, doctors' lounge, etc. Some authorities call for a special work-room for preparation of supplies used only in this suite. A treatment room within the maternity section but not in the delivery suite has been recommended.

NURSERY

The nursery area is a part of the maternity section, but is removed as far as possible from the delivery suite. It should be so located that visitors wishing to observe the infants through the view windows can easily reach it without passing through corridors in other patient areas.

It has been calculated that the number of bassinets must be approximately 140 per

cent of the number of maternity beds to provide for premature births, with their longer stays in the hospital, and for suspect cases. The Children's Bureau of the U.S. Department of Labor suggests that the newborn nursery unit for normal infants be limited to a maximum of eight each, the figure being based on the number of normal infants that can be adequately cared for by one nurse.

There should be no entrance to the nursery from the corridor, since controlled access through the nurses' station is preferable. Separate cubicles and facilities and supplies for individual technique should be provided, with a minimum of 30 square feet of floor space and 270 cubic feet for each bassinet. Air conditioning for nurseries is recommended, permitting a 78° temperature and a relative humidity of from 50 to 55 per cent. Acoustical treatment is required. Each nursery should have lavatory facilities with knee control. Sterilizing lamps may be considered, especially for the supply ducts of the air conditioning system which serves the nursery.

Premature Nursery. Facilities for the care of a minimum of two premature infants must be supplied even in the smallest hospital. In hospitals having 10 or less maternity beds, a separate premature nursery will not be required; incubators placed in the normal nursery will suffice.

Separate nurseries for premature infants are limited to a maximum of four in any one unit. This represents the number that can be adequately cared for by one nurse. Individual heated bassinets or incubators with temperature and humidity control should be furnished, hence air conditioning will not be required in the premature nurseries. Otherwise, the premature nurseries will be similar to the normal nurseries.

Work Space and Examination Room. Each nursery should connect with an ante-

room that serves as work space, nurses' station and examination room. Where there is more than one nursery for normal and premature infants, the nurseries may be so arranged that one anteroom serves two nurseries. The anteroom has three areas, one for examination and treatment, one for the nurses' station, and one for the work space. Thus, only the nurse actually enters the nursery proper.

The nurses' station area should be designed as a "control station," with a nurse's desk so located that she can control the entrances from the corridor to the anteroom and from the anteroom to the nurseries.

Suspect Nursery. The suspect nurseries should accommodate a number of bassinets approximately equal to 20 per cent of the number of beds supplied for maternity patients in the hospital. These nurseries should be completely separate from the normal and premature nurseries. A minimum of 40 square feet of floor space and 360 cubic feet of space is provided for each suspect bassinet. Even smaller hospitals require a minimum of two suspect bassinets. The suspect nursery may have up to three bassinets, since the technique is primarily that of observation rather than strict isolation of a contagious disease. Definitely diagnosed infectious cases are removed to the isolation area.

Suspect Anteroom. An anteroom is arranged between the suspect nursery and the corridor. One anteroom may serve two suspect nurseries. It should be provided with a lavatory, a desk and shelf, a hot plate and cabinet for necessary supplies. The viewing windows should be so arranged that the infants may be seen from the corridor.

Formula Room (Milk Room). Location of the formula room is the subject of some difference of opinion on the part of clinicians and administrators. Possible locations are the dietary department, the maternity

department and the pediatric department.

The final location of the formula room can be decided only after consultation with the hospital administrator, director of nurses, pediatrician and dietitian.

The following discussion is based on the use of the terminal sterilization technique.

Two separate areas are needed in the formula room, one a bottle-washing area and the other a preparation and filling area. They need be separated only by a low partition.

The bottle-washing area should be located off the corridor so as to receive soiled bottles. It should connect with the filling counter by an opening in the separating partition. A recessed rectangular pressure sterilizer should be provided at the end of the filling counter.

Wall cabinets should be avoided in the preparation and filling area because of the danger of foreign material falling into the formula. A hand-washing sink, a deep sink for utensil washing and a small refrigerator are required. Space for a small desk is recommended.

ADJUNCT DIAGNOSTIC FACILITIES

Laboratory. The extent of the area assigned for the laboratory is based on the assumption that a pathologist will be available. While some small hospitals may have to send pathological specimens elsewhere for examination, this can often be avoided by part-time arrangement that is both practical and feasible.

In the small hospital of 50 beds or less one room for all laboratory activities will suffice. If no pathologist is attached to the staff the area may be reduced to approximately 200 square feet, but, since the larger area may later be required, this is not recommended.

In larger hospitals it is usually necessary

that separate areas be assigned for pathology, serology, bacteriology, chemistry, hematology, urinalysis, blood bank or other special services. An office for the pathologist is indicated. A small room may be provided for out-patients coming to the laboratory, unless specimens are taken in the out-patient treatment rooms or in a small out-patient department laboratory designed for routine procedures. This room might also serve as a bleeding room if the hospital should decide to install a blood bank. It is advisable to consult the pathologist as to the rooms required and their design, especially for the larger hospitals.

The laboratory should be on a lower floor and so located as to be accessible to members of the medical staff and to out-patients who may be sent to the laboratory for specific procedures.

Radiology. The department of radiology should be so located as to be conveniently accessible to the in-patient areas and as close as possible to the emergency rooms and out-patient clinics. The location should be such as to permit adequate natural ventilation and freedom from dampness.

Detailed requirements of the departments should be governed by the advice of the radiologist, since they may vary widely, depending on the types of services contemplated.

In the small hospital, minimal provisions will include a space of not less than 200 square feet for both radiography and fluoroscopy.

In larger hospitals this may be extended to include a separate radiographic room or rooms, fluoroscopic room, therapy room, viewing room, office and waiting room. A special electrical current source for radiology should be arranged, with separate power line to prevent current fluctuation and provisions for adequate grounding. Installation of the radiologic unit should per-

mit access to the machine, preferably from both sides, by a bed or stretcher.

Basal Metabolism and Electrocardiography. One room will usually serve this dual purpose; it should be in a quiet location. Except for equipment, it will be similar to a one-bed patient's room. Since these tests and observations are usually by or under the general supervision of the laboratory technician or director, reasonably convenient access to the laboratory is preferred.

Draw curtains or other methods of darkening the room will be necessary, and separation by a cubicle curtain to eliminate possible distraction of the patient is advisable. Acoustical treatment of the ceiling is preferred.

Physical Therapy. Even the smallest general hospital will have considerable physical therapy, and the trend is toward increasing this form of treatment and concentrating required facilities. This permits more extensive use and efficiency under trained supervision, in caring for both in-patients and out-patients.

The principal divisions of the department are for electrotherapy, hydrotherapy and exercise. The first is by far the most extensive in the average hospital, and in the small unit may constitute practically the entire activity. Short-wave diathermy, infra-red, and ultra-violet equipment are essential.

Hydrotherapy is better separated from the electrotherapy area. Facilities here vary from small mobile tanks to elaborate installations of swimming pools, Hubbard or other tanks, showers, continuous flow and sitz baths. Tanks and wringer for hot and cold compress applications, and fixed or mobile arm and leg baths may be desired.

The exercise area, if furnished, requires bars, posture mirrors, steps, ladders of various types, pulleys, walkers or other similar

equipment, determined by the extent of the department.

Pharmacy. The area suggested for the activities of the pharmacy does not include space for bulk storage of pharmaceutical supplies, these being provided for in the area allotted to general stores.

Space will be required for a refrigerator and a safe for narcotics. The prescription section should conform to the equipment specifications of the National Association of Boards of Pharmacy and the American Pharmaceutical Association.

In the small hospital nothing more than a dispensing pharmacy will be required. It should be convenient to the out-patient department, if any, and accessible to the elevators for service to the various nursing stations. If the hospital is extremely small, and has little or no out-patient department, a drug room may be sufficient.

Solution Room. In hospitals of 100 or more beds, a separate area for the preparation of solutions is considered desirable.

If the processing of blood plasma is contemplated in the hospital, consideration should be given to combining the processing laboratory with the solution room.

Manufacturing. Determination of the extent to which manufacturing will be done in larger hospitals is a question of policy, and the extent to which provisions for this activity are furnished will be subject to the decision of the governing agency of the hospital.

Space is assigned for the preparation of large quantities of solutions, such as mouth washes, rubbing alcohol and liquid soap, and for facilities such as ointment mills, tablet machines, equipment for filling collapsible tubes and ampules, extracting and filtering. A water-resistant floor with drain, and adequate shelving and work space are required in this area.

The manufacturing room may be located

in the basement, directly under the pharmacy. A dumbwaiter should connect it to the pharmacy, and there should be means of direct access to the pharmacy and to the bulk pharmacy stores.

In the smaller hospital, where only one pharmacist is on duty, often without assistance, it is preferable that the manufacturing room be adjacent to the pharmacy to obtain more efficient utilization of that employee's time.

EMERGENCY DEPARTMENT

The emergency department should be so located that patients arriving by ambulance may have direct access to the emergency room. For this reason the department is usually located on the ground floor in the rear of the hospital building. The emergency entrance should have a convenient loading platform or a ramp and a marquee to protect patients being taken from cars or ambulances. Doors should be of a width to permit easy access of stretchers.

Emergency Room. The emergency room will be planned and equipped as a minor operating room, but scrub-up and (except in the larger hospitals) utility facilities may be placed in the emergency room. It should have a special medicine closet, cabinet for poisonous drugs, house telephone, electric clock, nurses' call, bulletin board, and space for resuscitation equipment. It may also be used for plaster work if no other room is available, but in such cases a plaster trap will be necessary.

Observation Beds. It is recommended, in hospitals with very active emergency services, where proper nursing can be assured, that a few beds be furnished in this area for patients in shock, for moribund patients, and possibly for accident patients suspected of having communicable disease.

Office and Waiting Room. An office and waiting room for the emergency section is

suggested for all but the smallest hospitals, to be convenient to the emergency entrance and to have a public telephone.

Stretcher and wheelchair space, toilet facilities, and a storage closet are required. The larger hospital will need a bath in addition.

SERVICE DEPARTMENTS

Dietary Department. The areas assigned to the dietary department in the area table on page 568 are based upon the use of the centralized tray service. There is considerable controversy over the relative efficiency of central tray and bulk food services, each type having both advantages and disadvantages. Since food is a most important factor in patient welfare and public good will, very serious study must be given to the method to be adopted before plans are drawn.

Under central tray service, patients' trays are completely served in the main kitchen, loaded on tray trucks, either open or insulated, and transported to the patient area. Soiled dishes are collected and returned to the central dishwashing room. The work of setting up the trays is done under the immediate supervision of the dietitian, who is expected to check each tray for contents and appearance.

This system requires less personnel, though better trained, and there is some saving in initial equipment costs. The most serious complaint is that food becomes unpalatable by the time it reaches the patient. Many authorities state that this can be overcome by efficient organization.

The bulk service system utilizes an insulated, heated cart somewhat like a steam table. Food is loaded into the cart in bulk and transported to the patients' area. In the meantime, trays have been prepared in the floor pantry and, under the best use of this system, a tray truck accompanies the food

truck down the nursing corridor. At each room the patient's tray is served from the bulk cart. Soiled dishes are usually handled in the dishwashing room, which requires a dishwasher on each floor.

Advocates of bulk service claim that while preparation and general service of food as a therapeutic measure must be under the immediate direction of a competent dietitian, its immediate service to the patient must be supervised by the nurse in the absence of the dietitian from the floor. It requires more personnel, but less experienced, to function efficiently, an important factor because of the larger turnover in this class of employee. Hot food is said to be practically assured. In larger hospitals where long distances must be covered, bulk service is almost mandatory.

Central Storeroom. Design for storage must be in accordance with local purchasing practices and needs. For these reasons it is advisable for the purchasing agent to be consulted when the storage area is being planned.

The area given does not include space for kitchen stores, refrigerated food storage, or fuel storage. It does include space for bulk pharmacy stores, facilities for the storage of special-type beds, large orthopedic equipment, extra equipment, and for all supplies and replacements to be issued for use throughout the institution. A fairly large space is left at the front of the general storage area for very bulky items.

If the hospital is situated away from central markets, the space must be proportionately larger so as to allow time for replacements and to permit storage of economic purchasing quantities based on shipping rates.

Pharmacy stores are usually handled by the pharmacist rather than by the general storekeeper, and hence are separated from

the main stores. Also, by this arrangement, pharmacy stores are available without allowing access to the other storerooms.

The main entrance to the storeroom will be kept locked and no one but the storeroom staff, and occasionally delivery men, will be expected to enter the storage space. Requisitions will be turned in at the office window, and deliveries made up in the storage space and sent to the floors. A make-up counter directly outside the office and near the hall doors facilitates the collection of items from various sections of the area.

Space is required for filing (or storage) of "inactive" medical records, possibly in the basement immediately beneath the medical record library and connected with

it by a spiral staircase, but in any event easily accessible from the main record room. If this space is not in the basement, the weight of heavy files must be considered in the floor construction.

Provisions for storage of films should meet requirements of local fire ordinances and the National Board of Fire Underwriters. Present regulations exclude quantity storage of nitrocellulose film inside hospital buildings.

It is highly desirable to have a space set aside for furnishing minor items for patients and employees. It may supply newspapers, magazines, toilet articles, tobacco, cold drinks and confections by sales service or may be limited to vending machines.

AREA DISTRIBUTION FOR ACUTE GENERAL HOSPITALS OF CAPACITIES SHOWN

Areas in Square Feet	50-Bed		100-Bed		150-Bed		200-Bed	
	Total	Per Bed	Total	Per Bed	Total	Per Bed	Total	Per Bed
<i>Administration Department</i>	1,970	39.4	2,975	29.8	3,577	23.8	4,775	23.8
<i>Adjunct Diagnostic and Treatment Facilities</i>								
Pathology	560	11.2	1,140	11.4	1,440	9.6	1,617	8.1
Radiology	565	11.3	565	5.7	1,080	7.2	1,285	6.4
X-ray Therapy	—	—	—	—	—	—	1,775	8.8
Physical Therapy	520	10.2	820	8.2	1,020	6.8	1,215	6.1
Occupational Therapy	—	—	—	—	400	2.6	495	2.5
Pharmacy	205	4.1	410	4.1	600	4.0	730	3.7
<i>Nursing Department</i>	8,805	176.0	17,995	179.9	26,995	179.9	35,995	179.9
<i>Nursery</i>	500	10.0	835	8.4	1,205	8.0	1,640	8.2
<i>Surgical Department</i>	1,980	39.6	3,105	31.1	4,210	28.1	5,030	25.1
<i>Obstetrics Department</i>	1,175	23.5	1,505	15.1	1,905	12.7	2,110	10.6
<i>Emergency Department</i>	370	7.4	370	3.7	515	3.4	775	3.9
<i>Service Department</i>								
Dietary Facilities	2,145	42.9	3,070	30.7	3,770	25.1	5,035	25.2
Central Storage	1,175	23.5	2,240	22.4	3,330	22.2	4,390	21.9
Employees Facilities	765	15.3	1,215	12.2	1,595	10.6	1,895	9.9
Laundry and House-keeping	1,365	27.3	1,805	18.1	2,325	15.5	2,715	13.6
Mechanical Facilities	1,030	20.6	1,480	14.8	1,800	12.0	1,970	9.9
<i>Circulation Spaces</i>	8,010	160.2	13,705	137.1	20,285	135.2	26,875	134.4
Total	31,140	623.0	53,235	532.4	76,050	507.0	100,322	501.6

OUT-PATIENT DEPARTMENT

Original design should, if possible, allow for future additions for this important function when it is not incorporated in the initial construction phases. Otherwise when it is developed, as it probably will be, the department will be forced into areas remote from necessary adjunct services or into poorly lighted or ventilated space designed for other purposes. In the latter case expansion usually takes place at the expense of storage or other space necessary to efficient operation of the hospital. Traffic lines become confused and complicated.

Out-patient departments are subject to extreme variation, but commonly are regarded as entirely separate from hospital in-patient service, though for economy

they should, when possible, utilize the hospital adjunct services. They are not included in the relative area distribution tables, and any area assigned to this function must be added to the areas assigned to the hospital proper.

Figures available indicate a variation of from one-half to two out-patient visits per day for each occupied bed. Normally the lower figure should prevail in average communities having the usual health department clinic organization. Estimated area requirements for out-patient departments approximate 40 square feet of floor space for each expected average daily patient-visit. Waiting room space is on the approximate basis of 12 square feet per patient-visit, because patients are often accompanied to the clinic by relatives.

5. Should the Building Last Forever? *by Fred G. Carter, M.D.**

Nor long ago I visited a hospital in a neighboring city. Part of the institution was housed in a building eighty years old. The ceilings were eighteen feet above the floor level on all three floors and everything else was in proportion. For eighty years this hospital has been heating, painting, washing the walls, and otherwise maintaining the equivalent of a five-story building and yet has had the use and income of only a three-story building during the entire period.

The windows were large and difficult to keep clean. Draperies and window shades required at least double the amount of material ordinarily used for such purposes. The rooms were huge, necessitating excessive floor maintenance per patient housed. Floor space, in relation to beds, was far above requirements. There was at least 40 per cent more piping in the steam and water lines than we would use in modern buildings and the piping was so installed

that each repair job swelled into a minor construction project.

I couldn't help wondering how many times this hospital has paid for a new building through eighty years of excessive upkeep and poor utilization of space. This experience raised in my mind the question that is the subject of this article, "Shall We Build Hospitals to Last Forever?"

Surely hospital buildings that satisfactorily fulfill all of the purposes for which they are intended should be used indefinitely, but there are many indications that this happy state of affairs seldom, if ever, is achieved. A hospital built with the best of intentions and with the best advice obtainable may be the last word in hospital construction at the moment it is finished but progress assures the beginning

* Adapted from *Mod. Hosp.* 60:50-52, Mar. 1943.

of obsolescence almost on the day that it is occupied. Many things contribute to this progressive decline of the effectiveness of hospital buildings, and all of these things have to be reckoned with in attempting to arrive at any sort of sensible conclusion as to the optimum period of usefulness of such buildings. The list cannot be exhausted in this brief presentation but enough examples can be cited to initiate thinking on the subject.

There may be fundamental errors in the original construction that make a hospital difficult and expensive to operate. An improperly planned hospital costing \$1,000,000 might easily cost \$25,000 more per year to operate than a properly planned one. The sum of \$25,000 per year at 4 per cent interest, compounded annually, at the end of twenty-four years would amount to \$1,016,147.71, all of which is tribute paid to poor original planning. If the building is so constructed that its faults cannot be corrected, living and working with these faults may prove to be expensive. The community owning such a hospital might be money ahead if it disposed of it at an early date and built anew under the guidance of people actually qualified to build hospitals.

A hospital erected in a fine neighborhood may find, in the course of a few years, that business and industry have encroached upon the location and made it an undesirable site for a hospital. A heavy traffic artery with all of its congestion and noise may have been routed past the door of the hospital. Parking space for patients, visitors, and staff becomes a problem. The type of tenant in the neighboring homes deteriorates, and the environment may become a slum, with vandalism, insanitary conditions, and crime flourishing at the very door of the hospital.

The clientele changes, and the financial position of the hospital is impaired. Eventually, the professional staff begins to disintegrate. Younger men are willing to acquire their early postgraduate training in such an environment but they seek more modern and better located facilities for their practices. Perhaps, as a generalization, this picture is somewhat overdrawn, but these things do happen all too frequently, especially in some of our larger cities.

Social practices change frequently, oftentimes with a direct effect upon hospitals. Ten years ago who could have predicted that the demand for multiple bed accommodations was going to grow tremendously within the following decade, and yet this is exactly what happened as a result of the development of the Blue Cross Plans. Obviously, the hospital with a great preponderance of single accommodations soon found itself in difficulties as Blue Cross subscribers multiplied. A mass change in the method of paying hospital bills had brought about important repercussions in hospitals.

A word of warning should be inserted here for the benefit of those who may contemplate extensive alterations to meet this demand for multiple accommodations, as well as for those who may be planning to build to meet this situation. Some day the Blue Cross Plans may decide to sell single accommodation contracts, resulting in a return of the demand for single rooms.

The labor market has much to do with determining whether or not some of our practices are justified. A cheap labor market permits a hospital to hire enough help to overcome deficiencies in the design of its building. A high labor cost compels a search for labor-saving devices and methods. Central food service, central supply

rooms, smaller nursing units, and many other items have come out of our efforts to meet the rising labor costs of the last two or three decades. Such attempts to change methods of operation quickly emphasize the inadequacy and obsolescence of buildings and point to the need for radical changes in many instances.

The greatly accelerated tempo of hospital and medical practice in recent years has emphasized our deficiencies. The cutting of the average hospital stay of from three or four weeks to ten or twelve days has resulted largely from a type of concentrated activity and attention for each individual patient that was unknown in the days when patients were just put to bed and allowed to recover.

Blood and plasma transfusions, intravenous medications, x-ray examinations, laboratory procedures, physical therapy, burn therapy, obstetrical analgesia, and the awakened interest in chemotherapy have combined to place heavy burdens upon hospital personnel in surroundings that are not always well adapted to the needs of the situation.

Only rarely has true flexibility been woven into the design of our hospital buildings, and this fact makes it difficult for us to cope with the problems of obsolescence. Partitions are massive and it is hard work and a costly procedure to change them. Built-in coves, floor patterns, window arrangements, heating, plumbing and wiring discourage alteration. This is in strong contrast to many modern office buildings which are completed as series of unpartitioned lofts. Space is divided to suit the needs and desires of tenants even on short-term leases. The same idea might give flexibility to hospital construction. Semiflexible copper and plastic tubing for water lines has helped to remove

some of the old bugaboos that are usually connected with plumbing alterations.

All of us are reluctant to discard old buildings because of the great original values they represent in many instances and because of the sentiment attached to them in other cases. These ideas are akin to those of the eighty-five-year-old mother who always referred to her four sons in their sixties as "the boys."

These are just a few of the things that should be taken into consideration in attempts to figure out the period of efficient usefulness of a hospital building. Obviously, no set of hard and fast rules can cover all situations, but it is safe to say that the perfect hospital has never been built and probably never will be. Improvements can always be thought of. When the needs for changes of major character begin to pile up it may be time to begin to think of new construction.

In undertaking new construction two distinct possibilities confront us. If we build for permanence we should also build for great flexibility so that the building can be altered with ease to care for the changing needs that will be encountered. On the other hand those who feel that the future holds too many unpredictables in the construction and medical fields to justify the long-term commitment should build for short-term rather than long-term use. All of this sounds almost apologetically simple, yet how many hospital authorities about to build actually give thought to the need for a decision on these points?

Those who elect to build for short-term use should look for inexpensive types of construction so that the building can be abandoned without appreciable loss after a fairly short life in the event that circumstances of the future justify such a step.

This course will permit new construction to encompass newer demands and new interpretations of old demands and, above all, the new developments in both the building industry and the medical field.

If hospital people visited around in other fields they might find many useful ideas and they might feel more strongly the importance of being ever on the alert for changes that would improve their own operating efficiency. Perhaps business, industry and government all have something to offer in the way of adapting buildings better to changing needs.

Anyone who has visited Washington recently may have noticed the many new comb-shaped buildings that have been erected to meet the war emergency. Cheap materials, low mechanical trade cost, and high degree of flexibility characterize all of them. Many are erected in three or four weeks. Some of the newer factories are of the same general pattern.

The new housing projects of the government in slum clearance work may suggest ideas in hospital construction. I am not saying that our hospitals should duplicate any of these structures, I am merely suggesting that there may be worthwhile ideas in these projects.

A degree of healthy skepticism applied to building traditions and methods might yield valuable returns in the way of much lower building costs. I have often wondered why a brick must measure $2\frac{1}{2}$ by 4 by 8 inches. Are they that size just because they have always been that size and no one has had the fortitude to change them or are there sound engineering reasons why a much larger brick won't fill the bill? Think of the time that might be saved in building if a brick of larger dimensions were used.

Costly pillars and towers, wide granite

or cement terraces to be cleared of snow in the winter time and swept clean in the summer time, elaborate ornamental iron-work, expensive lobbies, lighting fixtures that cost much and light little, high priced hardware, fancy roofs, bathrooms that most patients are too helpless to use, expensive floors and staircases, complicated and numerous entrances are all things we could do without or substitute for without affecting the care of patients one iota.

Perhaps we have gone too far with centralization of services and leaned too much toward the skyscraper type of building. Possibly we haven't gone far enough. Let's not believe everything we read in the book which, after all, represents only some other fellow's opinion.

In the final analysis, in building any kind of hospital we should recognize the fact that a hospital building is essentially a tool used in the care of the sick and injured. The tool should be designed specifically for the work it is to do by someone who has had adequate experience in designing that type of tool and he should be advised and helped by someone who knows intimately how the tool is to work in practice.

It goes almost without saying that the building should be fitted to its job, not the job to the building. One can't just pick out a certain style of architecture for a hospital and then adapt the hospital to its peculiarities. It would be almost as logical in building a locomotive to decide first of all that the locomotive must look like a horse regardless of the function it was to serve.

As a final word it may be said that our reluctance to discard coupled with a willingness to invest funds in buildings that already are poor investments and can never be anything else represents a serious weakness in hospital management.

6. Three Guides to Finding a Good Architect, *by James R. Edmunds, Jr., and Henry H. Saylor**

SELECTING an architect, whether for a hospital or for any other important building, is much like selecting a physician—the point is to get a good one. A good architect should possess three salient characteristics.

First, he should be a qualified designer. A designer should not be thought of as one who, familiar with the historic schools of ornament, resurrects them to embellish present-day construction. The term “designer” has no such meaning in the architectural profession. A designer in reality has the ability to put the right thing in the right place; to assemble and relate spaces for various needs so that the resulting building will function easily and pleasantly; to correlate the products of many different trades and skills so that these will best serve the purpose for which the building is required.

Design, in the architect’s vocabulary, is aimed toward gaining stark efficiency and a plus quality. This plus quality is emotional appeal. A successful piece of architecture must work well and, in addition, be pleasant to live with. If the building should attain real beauty as well so much the better. The point to be emphasized is that the primary consideration in selecting an architect for a hospital is his ability to achieve efficient fitness to purpose rather than to produce a merely beautiful building.

The second qualification which characterizes a good hospital architect is technical knowledge. Obviously the architect’s technical knowledge will include the elements of sound and sage construction. A man would never get past the examining board of his state if he did not possess that sort of technical knowledge. But he will

need far more than that to create a good hospital.

He should know how and where the doors of a hospital vary from those in a schoolhouse; how essential it is to prevent the occurrence of an electric spark in an operating room; how food is prepared and brought to the patient’s bedside; how to introduce fresh air into a ward without creating a draft; how walls and floors should be finished in the interest of sanitation and low maintenance costs; how an isolation room may be made to isolate not only the patient but his germs as well; how an x-ray department is made to disperse its rays beneficially and not harmfully.

There is no apparent end to this type of technical knowledge, particularly in view of varying opinions among administrators. Nevertheless, only in the sum of this technical knowledge is there assurance that the hospital to be built will function in accordance with the wishes of those who direct it and the needs of its medical staff.

Fortunately for the well-being of those for whom a hospital is built, all of this knowledge of special techniques is available to the architect who will seek it. Some architects prefer to make such knowledge their own by dint of personal study, travel, and investigation. Other architects prefer to call in a consultant who specializes in this sort of knowledge as related to a special type of building. There are hospital consultants just as there are schoolhouse consultants, theater consultants, industrial consultants, and other specialists.

Frequently, if not invariably, a building committee will ask a potential choice the question, “Have you ever designed a hos-

* Adapted from *Hospitals* 20:99-100, May 1946.

pital?" While the architect's ability to serve the hospital properly may be inferred from successfully completed work of a like character, an answer in the negative certainly does not mean that the architect is therefore incapable of designing a hospital. Many successful hospitals represent their designers' first efforts in that type of structure.

The third and final qualification essential to a good hospital architect may be labeled business ability. An architect's business ability is perhaps most easily checked by inquiry among his previous clients and among the contractors who have built for these clients under the architect's direction. In this general category of business relationships the architect's service governs many things.

He will see that the proper forms of contract are drawn; that the project is protected by suitable types of insurance; that payments are made when due and to whom due; that the subdivisions of the work by trades are properly channeled and correlated in time; that the owner gets what he is paying for; that necessary detail drawings get to the subcontractor or to the factory on a production schedule. In short, the operation must be so orchestrated that the efforts of many men and the fitting together of many materials and pieces of equipment are brought to harmonious coalescence.

Even with an awareness of the preceding requirements, a hospital building committee must still solve the problem of actually finding an architect who possesses these basic qualifications.

The building committee charged with selecting an architect should thoroughly examine and try to evaluate past performances of the candidates with particular reference to efficiency of design, the prime prerequisite. If an architect has solved one or more fairly complex building problems however far removed in character from those presented by a hospital, it seems reasonable to assume that solution of the latter is within his capabilities.

At the same time the committee should learn by questioning the owners and the operators of the plant or building under examination how well the structure has stood the wear and tear of usage and whether its maintenance and repair costs are reasonable. From this information an opinion of the architect's technical knowledge and judgment can be formed.

This sounds like a simple and easy procedure to an architect, but in practice it may not prove so to a lay building committee. If it were possible to obtain the advice and counsel of another architect who had no prejudicial interest whatever in the project in hand, the committee's work would be greatly facilitated.

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CHAPTER XXIII. PLANT MAINTENANCE

I. Emphasis on the Engineer, by *Fred G. Carter, M.D.**

THE engineering and maintenance departments of hospitals long since have passed out of the category of "necessary evils." Alert hospital administrators who have watched the growing mechanization of their institutions recognize the fact that someone to fire a boiler and do a little carpenter work is no longer the answer to the mechanical needs of hospitals. They want executive and engineering abilities in these areas of their plants.

The present crisis serves to emphasize the value of good engineering supervision. New equipment is not readily obtainable and in many instances repair parts are delivered only after long delays. Equipment must be made to last longer; shutdowns must be avoided; and preventive maintenance must be stressed as never before. The existence of hospitals for the immediate future depends greatly upon how well the mechanical divisions do their work. Normal maintenance programs must be stepped up to their greatest possible efficiency to meet abnormal conditions of the present-day tempo.

A few years ago a certain hospital superintendent, new to his position and his institution, was confronted with the fact that his hospital plant, only recently completed, was deteriorating more rapidly than circumstances warranted. Painting had been neglected, plaster had fallen here and there, trouble developed in the electric generating plant, roofs were not inspected and taken care of at proper intervals, elevators were sources of constant complaint and annoyance, and repair jobs, generally, were poorly done. The hospital had been

paying a fairly large crew of men to look after all of these matters but it was apparent that they were not measuring up to their responsibilities.

This administrator decided that something had to be done—the sooner the better. He made up his mind that he was going to employ a competent professional engineer with executive ability. Accordingly, he and the president of his board consulted the dean of a well-known engineering school. Together they made their wants known. Among the candidates subsequently interviewed, one was hired at a salary about double the average being paid men in similar positions.

During the first year of the new engineer's incumbency the coal consumption of the hospital dropped 20 per cent; this saving alone more than paid the engineer's entire salary. Some of the methods adopted to make this saving possible were: furnaces equipped with proper tuyeres; automatic equipment and gauges in the power plant used effectively to increase efficiency; various types of coal tested and the best type for the equipment in the plant selected; uniformity of coal quality assured by buying directly from a particular mine, and an additional saving of 10 per cent effected through the direct purchase method.

To guard against contingencies such as strikes, inclement weather, and other possibilities of supply failure, several hundred tons of coal were stored on the grounds to be tapped whenever an emergency arose

* Adapted from *Mod. Hosp.* 58:84, 86, Apr. 1942.

to interfere with deliveries. Such emergencies did arise on several occasions to justify the procedure.

A daily log and daily reports to the superintendent were instituted. These reports showed the amounts of coal burned on each shift, the amounts of steam generated per pound of coal burned, the amounts of electricity generated, the quantities of ice manufactured, and the amounts of water consumed. Evaporation rose rapidly from about 8 pounds of steam per pound of coal burned to a minimum of 10½ pounds.

Planning and setting up proper work shops was the next step. Tools of many kinds had to be purchased if the men were to do their work efficiently. A few hundred dollars spent for equipment of this kind is a good investment. However, when drill presses, lathes, jointers, shapers, band saws, circular saws, sanders, power mowers, and paint spraying equipment have been purchased they must be looked after; this fact points to the necessity of a well-planned stock and tool room. A good stockroom with a simple inventory is worth all that it costs to run and more.

Painters, electricians, carpenters, and mechanics of all kinds appreciate attention to their working needs. If the administrator of the hospital shows a real interest in their work and their accomplishments he can rest assured the men will respond wholeheartedly to his overtures.

Much time can be lost in a hospital in needless running to and from shops for tools and supplies. Properly equipped tool carts are the remedy. Another timesaver is the standard painting code for indicating contents of pipe lines.

Many small mechanical gadgets in a hospital need frequent repair. Signal lights, intercommunicating telephones, and house radio sets are examples. A simple test panel

in the repair shop obviates the need for time-consuming trips to test repaired items and a substantial workbench on wheels can be moved to the site of a job to save the mechanic's and electrician's time.

Working schedules can be productive of real economies. There should be a proper time for doing almost everything in the way of maintenance. Laundry machinery needs attention at least weekly; this can be taken care of at a regular time by the night shift or during the half day in the week when the employees do not work. Many pieces of equipment in the dietary department need regular attention: gas burners should be kept clean, machinery with moving parts needs oiling, electrical equipment needs cleaning and oftentimes rewiring; a little paint preserves and improves the appearance of the kitchens. The heating system should be thoroughly overhauled in the summertime, the refrigerating system in the wintertime.

The number of electric motors found in a hospital is often a surprise to hospital people themselves. Each one requires regular inspection, cleaning, and oiling. Roof repairs and outside painting are summertime jobs. Tunnel and basement work and reconditioning of summertime equipment offer wintertime activity for the grounds crew. Elevators can be a source of much annoyance if they do not receive regular attention.

All of these jobs suggest the wisdom of making specialists of the various repair mechanics. The care of elevators is a full-time job for one or more men in many institutions. Motors and mechanical refrigerators make a good combination for another. There is always plenty of work for an electrician and the same may be said for painters, carpenters, cabinet makers, furniture refinishers, and steamfitters. The establishment of proper

schedules and the assignment of men to carry out these schedules keep things running smoothly with a minimum of emergency work and little lost time from unexpected breakdowns. Incidentally, men assigned to limited fields soon become experts in those fields.

With hospital equipment becoming more complicated each year in response to increasing demands from many sources, expert advice is needed by the administra-

tor in relation to the mechanical part of his plant. Such advice can and should come from a competent engineer who has imagination, initiative, drive, qualities of leadership, and those attributes that go to make what we call executive ability. Sometimes the graduate professional engineer furnishes the answer to the problem. Again, the engineer who has come up through the ranks may have all of the qualities desired.

2. First Aid for the Power Plant; National Fuel Efficiency Program, by J. H. Burton*

NO MAJOR operation on your power-plant equipment is needed to effect a definite saving through elimination of waste, but it takes a specialist in the field to diagnose your case and prescribe the specific remedy.

The National Fuel Efficiency Program provides this service, without cost, for the good of the country and the war program wherever the symptoms of waste are manifested through the whole steam circulation system from production to utilization. Enough fuel can generally be saved to make a substantial difference in the cost of operating the plant.

Unfortunately, the hospital power system usually gets little attention from the administration unless the lights go out in the operating room during a major operation or the elevators become recalcitrant at the most inopportune time. Even these disruptions are soon forgotten by the administration.

The emphasis on the value of life is, of course, the prime function of a hospital, but the engineers and those in charge of the operation and maintenance of a hospital power plant are beginning to think that they, too, should receive some executive attention if the entire institution is to oper-

ate smoothly and on a thoroughly efficient basis.

In many hospitals the man in charge of the plant is now invited to sit in the councils of the staff executives, especially when control figures are under scrutiny. He can provide many ideas on the conservation of heat and electrical energy in a score of places little considered by the management. Thousands of gallons of hot water are wasted every month in the hydrotherapy department, and that means waste of fuel in some form—coal, gas, or oil. The operation of the laundry of any hospital is a major expense item. In 1942 the cost of this one department in the nation's hospitals totaled \$25,000,000, and the waste of a small fraction of the steam or water means a substantial loss.

According to a report in *Industrial Marketing* for October 1943, the food costs of these hospitals for the same period exceeded \$300,000,000. Any waste that can be eliminated in cooking this food will be reflected in the fuel saved.

* Adapted from *Mod. Hosp.* 64:106, 108, Feb. 1945.

The late Mr. Burton was an Information Specialist of the National Fuel Efficiency Section, U.S. Bureau of Mines.

The combustion department of any hospital should have a check-up just as thoroughly and regularly as the doctors themselves examine their patients. Every part of the equipment needs periodical inspection. Oil and gas units must have proper attention and if the plant burns coal, the coal, when possible, should be fitted to the plant. Substantial savings can be effected in the costs of this phase of plant operation.

While the matter of reliability in a hospital is of great importance, economy of operation must be considered, because many hospitals have a constant struggle with deficits.

In hospitals or elsewhere room temperature should be controlled within reasonable limits. This seems perfectly obvious, but it is strange how often it is overlooked, and heat will be wasted where it is not at all necessary for the patient's comfort.

The boiler room represents one of the best opportunities for preventing heat losses and wastes, but it is by no means the only place. Besides keeping the boilers and fuel-burning equipment in good mechanical operating condition (which includes keeping the fire and water sides of the boiler clean, maintaining proper adjustment of firing equipment and chimney draft, and operating them properly at all times) many losses of heat, steam, or hot water can be eliminated in other places throughout the entire building.

All boiler auxiliaries, such as instruments and controls, pumps, valves and traps and heat-exchange equipment, must receive their proper attention periodically if heat dissipation is to be avoided.

Utilization and distribution of heat present dozens of spots where savings can be accomplished, if an organized method of checking is followed. Insulation of

steam or hot-water piping and equipment throughout the entire plant, properly packed valves and joints, and tight adjustment on hot-water faucets are definite "musts" in the efficient and economically operated power plant.

The use of exhaust steam is of vital importance. There are many ways of utilizing it; the more important ones include feed-water heating, service-water heating, process heating, and space heating. Process-equipment heat losses, electrical energy losses, and compressed-air leaks are always in the foreground of the minds of those seeking to locate and prevent heat-energy losses.

The National Fuel Efficiency Program, without obligating the management of any organization, is designed to cooperate with any hospital. The following explanation reviews briefly the program's plan of operation:

What It Is: In cooperation with the United States Department of the Interior, Bureau of Mines, and many of the best engineers of the country the National Fuel Efficiency Program is a service to all plants (industrial and commercial) where fuel may be saved.

What It Does: The program saves fuel of all description, with accent on coal, since production is lagging owing to the manpower shortage and other contributing causes. Coal is a critical war material and millions of tons must be saved or war activities will be crippled, industrial production will be curtailed, and homes will be deprived of some of their heat this winter.

How It Does It: The program has been worked out through the voluntary cooperation of a large body of the best engineers of the country, organized as coordinators, regional engineers, and waste chasers, whose sole aim is to locate and eliminate

fuel wastes wherever possible from a briefer study of conditions in a plant than a consulting engineer would give. The program asks nothing, involves no new installation but simply requires a little cooperation on the part of the plant personnel for patriotic and economic purposes.

Walter Reed Hospital of Washington, D.C., has saved 15.7 per cent in coal consumption in its boiler plant alone. Commercial and industrial institutions of all descriptions are reporting similar savings throughout the plant of 8.2 to 20 per cent.

New ideas and techniques in hospital administration should be used as much in the power plant as in the operating room, but for the purpose of saving fuel the National Fuel Efficiency Program

works largely with existing equipment and the plant as it is now operating and shows places where waste can be eliminated.

No one questions the need of more hospitals during the present national emergency, and it can be said safely that post-war demands will establish new records in hospital and institutional building construction. With this new construction, new and modernized designs of power plants serving these hospitals and institutions will be developed inevitably, and the man who watches faithfully and well the many component parts of his equipment which is an important adjunct in every part of the building will have his rightful voice in the operating plans of the institution.

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CHAPTER XXIV. PURCHASING

1. Purchasing and Storeroom Control, *by Florence King**

PART I

HAVE we not been somewhat inconsistent in planning our hospitals? Have we not concentrated our efforts on the x-ray department, the operating room, facilities for the patients, and nurses' residence, and neglected the business department that is responsible for the expenditure of from 35 to 50 per cent of the hospital's operating funds?

If we are convinced of the advantages of modern diagnostic and therapeutic equipment, why scorn the need for equally modern business principles? We are prone to overestimate the value of hospital supplies and equipment as applied to the patients' comfort and forget that sound business principles and wise purchasing result in equal benefit to the patient. We center our interest on the patient and his needs in an effort to rationalize and explain why we are more interested in new deep therapy equipment or some swanky new furniture for the private pavilion. In so doing we overlook the fact that it is the patient who is aided ultimately by anything that adds to the smooth operation of the hospital.

Do not conclude that I am subscribing to the thesis that a good supply control system will make a patient forget he has a bumpy mattress or a cold supper tray. But I do subscribe to the proposition that sound business procedures are as important as fancy bed spreads and silver hot plates. Just as in the age-old statement that the chain is as strong as its weakest link, so the hospital is no better than its weakest department and nine chances out of

ten that lame-duck department in your hospital and mine is that of purchasing and store room control.

So-called big business has long since recognized the fact that antiquated business methods do not make for success. Department stores, for example, have within the past decade blossomed forth with the last word in display equipment. But for every new counter or glass case installed to catch the customer's eye they have added an improvement in their "behind the scenes" set-up. Is it not high time for us hospital people, who love to prate about ours being one of the largest industries, to bring our business methods up to a level consistent with that rating? Would we care to have the industries that out-rank us make too close a survey of our haphazard, lackadaisical methods?

While censuring ourselves for our lack of progress, we can at least take comfort in the knowledge that this has not been unique in the hospital field. Indeed, it is claimed that the buying for all educational and charitable institutions lags behind industrial buying—a paradox when you learn that schools offering excellent courses in industrial buying have themselves been slow to practice what they preach. Industry has been awake to the value of such courses but education has not yet opened the textbooks nor learned to use its own resources. When we know that a great university like Harvard sailed along for almost three hundred years before it ap-

* Adapted from *Hospitals* 17:103-106, 108, 110, 112, 114, April; 59-62, June; 101-103, July 1943.

preciated the necessity of reorganizing its business methods, we can review our own shortcomings, if not with complacency, at least with tolerance.

May I ask your indulgence while I quote from *Pardon My Harvard Accent* in which the author, William G. Morse, tells of his experience in the reorganization program:

"By 1920 Harvard had outgrown its business methods. Each year it was going deeper in the red and when the red figure was finally arrived at it showed only what Harvard had spent; no one knew how much more Harvard owed. Any one of a thousand or more professors, doctors and clerks could charge things to Harvard or to himself or to herself, put the bill in the pocket of another suit of clothes to be completely forgotten, or, if he remembered it a few months later, say to some bewildered credit man, 'Harvard owes you that, not I.' Harvard, with millions to spend, was poor, for a man is poor who spends more than he has and rich when he spends less. It was a Herculean task uprooting old habits, traditions, and prejudices to bring order out of chaos, and I am glad that I was one of those who for twenty years has helped to keep Harvard in the black."

Mr. Morse started his work by interviewing some of the professors. The first replied in his somewhat pompous manner that he presumed they bought mostly lead pencils and stationery, and as they were buying from the best stationery department in Greater Boston, no purchasing department could hope to do as well as they could do. He advised against it, saying it could not succeed. (As a matter of fact, not 2 per cent of the supplies Harvard buys are lead pencils and stationery.)

Another professor said he would be damned if he would stay at Harvard if they ran it like Johns Hopkins, where, his

friends told him, if you wanted a tin cup, you had your choice between cup No. 1 and cup No. 2. A third announced that if such a purchasing department was started, it should be under him. However, he advised against it, explaining that no savings could be made, and that was that.

But Mr. Morse was asked to establish such a department and accepted. It required three years of patient work before he could even standardize on one kind of paper towel and it was another year before he could standardize on soap. Today he writes, "I am proud of the purchasing department at Harvard and of the things my four clerks and I can do. I am glad they picked me for the job, for it has been a lot of fun."

I am glad, too, for Mr. Morse's book makes pleasant reading and his money-saving saga is a challenge to us who may not have staid professors to convert but have instead board members, doctors, and department heads who are just as "sot in their ways."

Business principles in the hospital field cover a large area but for our discussion we shall limit ourselves to those which have to do with purchasing, stores and handling supplies.

If a hospital is to adopt sound business principles for its purchasing, the first thing to consider is the method of handling purchases, the general policy of which must be decided by the board of directors. As it is the prerogative of an author to outline the ideal, I shall start with the premise that the ideal system is to have, whether the hospital be a large or a small one, one person in charge of purchasing. In the small hospital he may, of necessity, have additional duties, but at least he and only he will do the buying. In some institutions it has been deemed wise for the pharmacist to do his own buying and for the

dietitian to do her own purchasing as far as perishables are concerned. The latter system is followed in the hospital with which I am associated and, though it has worked out satisfactorily for us, I still contend that having all purchases made by one individual is better.

The advantage of having one purchasing agent is that it concentrates responsibility for all purchases under a single head and gives the job of purchasing the status of a specialty, to which any department dispensing 50 per cent of an organization's funds is entitled. It takes purchasing out of the "jack of all trades" category into which it falls when it lets every Tom, Dick, and Harry look after the buying.

In our hospitals we want an experienced roentgenologist to look after our x-ray department and an experienced pathologist for our laboratory. Why then, when we want a first-rate job of purchasing done, do we not delegate the job to someone qualified to do that work? Is it reasonable to suppose that the operating room supervisor, because she shows tact in scheduling operations and manages her department well, is a person of business acumen? Further, is it not quite understandable that each head holds his own department very dear and wants it to have the lion's share? One purchasing agent, if he is fair and square, will maintain an impartial over-all view of all departments. Moreover, there are so many commodities that are used by all departments and, if one individual places large orders for all, he can take advantage of quantity prices.

To summarize, if we permit everybody and his brother to do the buying—

1. Standardization of supplies is impossible.
2. The department head, busy with the professional details of his department, is likely not to bother with written bids and price competition.

3. Lacking the proper accounting set-up, the department head is careless about inventories and wise quantity buying, and may fall prey to the sin of hand-to-mouth buying or the extreme of stocking several years ahead.

Assuming we are convinced of the soundness of having one individual handle the purchasing, let us consider the requirements for a good purchasing agent.

Herman Zaagman describes them in the 1940 *Modern Hospital Year Book*, as follows:

1. The purchasing agent buys all products and services required by the hospital and disposes of obsolete material and equipment, scrap, and other discards.
2. He studies business conditions and markets, establishes relations with vendors, and investigates possible new sources of material, equipment, and supplies.
3. He is responsible for keeping the inventory at the lowest figure consistent with business and market conditions.
4. He interviews salesmen.
5. He conducts all correspondence and negotiations with vendors.
6. He is responsible for filing claims and securing adjustments for goods damaged in transit.
7. He keeps in touch with the general activities of the hospital and its several departments.

"Purchasing in any hospital," he says, "should be in charge of a person who knows products, their uses, their intrinsic value and their origin and fabrication."

The list of qualifications for the ideal administrator is a staggering one and, when we add to these the more specific duties of the purchasing agent, a dual job in the average hospital, we find we must have a paragon who is a combination of the gods of mythology, the knights of the Middle Ages, and the business man of today. And a dash of Scotch ancestry would not come amiss.

The wise buyer will recognize the need for cooperation with department heads. He will welcome suggestions from them as to quality and technical points and will arrange frequent conferences for this purpose.

On the other hand, to prevent friction, sales representatives must not be permitted to call on department heads if the purchasing is assigned to one buyer. Department heads of high caliber are usually willing to cooperate.

One of the first things for the purchasing agent to do is to study the Code of Hospital Ethics, approved and adopted by the American Hospital Association and the American College of Hospital Administrators, which reads as follows:

"The administrator should bear in mind constantly that, in his relationships with the representatives of supply houses or commercial organizations, his hospital is almost inevitably concerned. Therefore, his relationships should be courteous at all times and of such a nature that under no circumstances will the hospital be involved or obligated in any way. Particularly important is it that the administrator refrain from becoming under personal obligation to a firm or its representative, as would be the case by the acceptance of personal gifts or unusual social favors. Personal commissions or rebates should never be accepted.

"The administrator should not give a testimonial for public use and should not authorize or otherwise permit the public use of his name or photograph in the endorsement of commercial services, equipment materials, drugs or other supplies.

"Gifts or donations should not be solicited from business houses on the basis of making a return for business granted.

"Unless required by law to do so, the administrator or his staff should not disclose the prices to a competitor of a firm sub-

mitting prices. Orders placed in good faith should not be canceled or the goods returned without legitimate reason.

"Requests for special extension of credits or time payments should be definitely arranged before any merchandise is ordered."

A pitfall in the life of every purchasing agent is what might be called the "good-pal racket." The purchasing agent's friends expect him to purchase items for them wholesale, though he has no right to do this. The Associated Retail Credit Association is up in arms about this situation and rightly so. When firms offer wholesale prices or discounts to charitable institutions they do it as a courtesy because of the large volume of business and the charitable nature of the organization, and permitting everybody's friend to take advantage of charity discounts is a betrayal of the trust placed in the purchasing agent. Moreover, the purchasing agent should devote his time to purchasing for the hospital and not spend his institution's time buying wedding presents for his next-door neighbor to send to her cousin in Kansas. The experience of many purchasing agents is that when they try to accommodate friends they end in grief. The electric refrigerator is not what the doctor's wife wanted and the hospital is expected to fight it out with the wholesaler. Everybody is peeved all around and the doctor has received a discount to which he was not entitled. This abuse has been carried to such an extent that it will doubtless ultimately result in having all discounts withdrawn and those who are justly entitled to them will be the ones to pay the fiddler.

So much for what the purchasing agent should not do. Now let us consider what he should do. In the first place, he should, as we have said previously, purchase wisely

and economically for each department without antagonizing its head. He should keep posted on the latest equipment and supplies but not "go haywire" and stock up on fly-by-night innovations which will prove just a passing fancy or deteriorate on the storeroom shelves.

He must be fair and square with the sales representatives; if he is, they will be equally fair with him. He will not disclose one firm's bids to another bidder. He will not hide the fact that he is asking other firms for bids and, if he receives a better price, he will say so but without revealing the better price.

He will not permit personal friendships to influence him in his buying, though, paradoxical as this may seem, he must never forget the friendly, kind acts of a vendor. I have in mind a firm which, in all the years our hospital has given it large orders, has never offered the purchasing agent so much as a candy bar but has given service and value that cannot be praised too highly. If on Sunday morning we call one of the sales representatives at his home to take care of an emergency order we know that, regardless of personal inconvenience to him, that instrument will be in the hospital at the time needed. We have learned through competitive bids that this house gives us good value for our money, excellent service, and will not humiliate us by offering a gift to our purchasing agent. We consider it one of our hospital's best friends, and are happy to give it a large share of our business.

Business thrown to a board member or the relative of an important staff member is usually costly. Here much depends upon the policy of the board of directors. Heaven pity the purchasing agent who is bound by the selfish interests of certain board members who compel the hospital to purchase from firms which they repre-

sent, solely because they are members of the board. Many an institution pays exorbitant prices to a firm and dares not get competitive bids because its president happens to be a member of the hospital's board.

The purchasing agent is often perplexed by the question, "Are we obliged to buy locally, especially from firms which contribute generously to local charities?" My answer is (and you may disagree with me) "Only when you can spend the hospital dollar as wisely as elsewhere." The merchant whose gifts to charity are used as bait for business is one of whom we should be wary, for he will usually charge extra to make up for his donation, or, as Robert Southey tersely expresses it, he will be one whose "alms were money put to interest." On the other hand, price, quality, and service being equal, the local firm undoubtedly should be shown preference.

The purchasing agent must never lose sight of the part he plays in the realm of public relations. His relations with sales representatives can indeed make or lose friends for his institution. The salesman who is rudely received will naturally be prejudiced against the entire organization and will lose no opportunity to hurl invectives at the hospital whenever he hears it mentioned. The man who is greeted graciously, even though no order is forthcoming, will usually feel kindly toward the hospital and speak well of it.

It is impossible to place an order with every representative who calls but one can at least say "no" pleasantly. We might learn in this respect from the Chinese whose unfailing politeness is a symbol of their race. A fine example of handling a salesman with velvet gloves, though no purchase was made, is portrayed in Pearl Buck's *Dragon Seed*, where she describes the visit of a peddler of Shantung silks

and grass cloth who makes a vain attempt to sell a farmer's wife his goods. He compliments her on her discriminating taste and she flatters him by listening with rapt attention to his exciting tales of the war which in his travels he has picked up. Then they, she and her husband, offer him tea, after which he shoulders his pack, bows, and goes away. No order, to be sure, and yet the salesman left his would-be customers without a trace of rancor.

The purchasing agent will acknowledge his indebtedness to the salesman for a vast store of technical knowledge. Firms of high caliber employ representatives of equally high caliber, both personally and professionally, who are eager and willing to disseminate technical knowledge to the purchasing agent, if he has the good sense to want to learn.

The earlier the purchasing agent learns to submerge his ego the better he will fare. I recall an experience during those days when I was still green as grass about medical and surgical supplies. I have never ceased to be grateful to a salesman who, when I in smart-aleck fashion announced I would order six gross of something, counseled me to buy one dozen. My inflated ego went down with a bang and so did his commission, but up went my respect for an absolute gentleman. From that day I have known I could trust him and I frequently seek his advice.

The purchasing agent should be an omnivorous reader, but not the conscientious pedantic type who limits his literary fare to hospital journals only. They are splendid and should be scripture to him, but reading along other lines is equally important. The man who lays down his hospital magazine and picks up a book on old glass or china will perhaps find a new interest and will enjoy his china and glass buying

much more. A book on South American travel may add to his knowledge regarding rubber or coffee. Robert Louis Stevenson had a better way of saying this when he wrote, "Perpetual devotion to what a man calls his business is only to be sustained by perpetual neglect of many other things."

The wide-awake purchasing agent will familiarize himself with the ultimate use of every commodity he buys. By so doing he will gain the good will of the department heads, for they will be flattered by the implied compliment of his seeking information from them as authorities in their specialties.

He should also interest himself in what might be called the background of the merchandise he buys. Trips to textile mills, canneries, dairies, and wholesale grocery houses are always worth while. An afternoon spent in a commercial laundry is bound to prove profitable, especially if the purchasing agent asks his own laundry supervisor to accompany him. The dietitians and the storekeepers will appreciate it if they are included in the tour of the wholesale grocery firms. These friendly gestures lessen the possibility of friction between the purchasing agent and the department head and are of educational value also.

During these war days when it is difficult to secure certain commodities, the value of visiting other institutions has increased in importance. "Swapping" has become the vogue. A friend of mine made a "sense of duty" call at an orphans' home recently and was repaid for his trouble when he discovered the orphans' home had dozens of unused metal lockers to trade for a large hot water tank that my friend's institution no longer needed.

One need not emphasize the importance

of his attending meetings of hospital associations and allied fields, particularly those meetings where he can visit commercial exhibits and keep posted on what's what in new equipment.

So much for the purchasing agent. May he be the acme of perfection that we have pictured him. And now for his system of purchasing which might be summarized in the following Ten Commandments of Buying:

I. *Thou shalt secure bids on all purchases.*

Give detailed specifications so all bidders may quote on uniform merchandise. Retain a permanent record of bids for purchaser's protection. Do not disclose the other fellow's bid.

II. *Thou shalt buy merchandise of proven quality.*

This does not necessarily imply that only nationally known brands shall be bought. Usually the well-known brands are cheaper in the long run. However, we have come to learn that sometimes we pay extra for the label and the fancy package. Only rigid standards of testing can decide the relative merits.

III. *Thou shalt place the hospital's interests before thine own.*

The purchasing agent must be ever mindful of the fact that his job is a sacred trust, and that he is a steward entrusted with the expenditure of community funds which it is his obligation to spend to the best possible advantage. Just as in the Parable of the Talents, he must render a good accounting of his husbandry if he is worthy of his job.

IV. *Thou shalt evaluate quality.*

Select the worth-while innovation and discard the attractive new gadget that will be worthless tomorrow. In making a purchase, take into consideration the effect that storage of a commodity will have on its ultimate cost, whether it will de-

teriorate in quality, shrink in quantity, or become obsolete while in storage.

V. *Thou shalt keep thy shelves well stocked.*

Last-minute buying and borrowing do not speak well for any purchasing agent.

VI. *Thou shalt keep stocks moving and dispose of the obsolete.*

Items no longer used by one department may be used by another. It is not a bad policy occasionally to invite department heads to inspect articles consigned to the limbo of obsolescence. An item no longer used by the laboratory may be utilized in the obstetrical department and thus terminate its dust-collecting days on the storeroom shelves.

VII. *Thou shalt carefully check the count, weight, and quality of all incoming supplies.*

This injunction is not predicated on the thought that every merchant is dishonest but rather on the knowledge that the best of shipping clerks is fallible.

VIII. *Thou shalt not be a telephone addict or an office chair recluse.*

Do not choose the line of least resistance for your purchasing. Go out into the markets once in a while. Moseying about a department store sometimes pays, particularly during the end-of-the-month sales when odd lots of bed spreads and draperies may sometimes be bought for the proverbial song.

IX. *Thou shalt learn the true meaning of the adage "Penny wise and pound foolish."*

Or, as my mother used to express it, "What's cheap's cheap." Learn the fallacy of mistaking poor quality for good economy. Many a purchasing agent has felt he secured a clever bargain at a low price, only to discover later that with freight charges added and cash discount denied, the purchase cost more than one from another firm whose original bid was higher.

X. *Thou shalt issue a written order covering every purchase.*

As a result, there would not be any so-called padding of orders. The hospital that suffers in this respect usually deserves to. Recently, a hospital administrator was heard condemning a certain salesman and accusing him of padding orders. When asked whether he always gave a written order, he smugly replied that he was a minister of the Gospel and trusted people. In direct contradiction of this statement he denounced the man for sending him more equipment than he thought he had ordered because he had been too careless to issue a written order. The average firm with which we deal is honest and, if not inherently honest, is too smart to want to jeopardize a good sales connection by dishonesty. The memory of the person placing the order is just as likely to be unreliable as the ethical standard of the sales representative. This is particularly true in a hospital where a busy operating room supervisor, superintendent of nurses, or engineer, all engrossed in the duties of their respective departments, have to stop to interview salesmen, place verbal orders, and go about their business. Is it not quite conceivable that they might be mistaken about quantity when the order is received six months later? Is it fair to the merchant not to give him a written order?

PART II

DID you ever walk into a hospital and have the administrator invite you to inspect his model storerooms? I never have. Recently, in planning a National Hospital Day exhibit, I tried to find a storeroom in which one of the newspapers could take photographs. Every administrator whom I called assured me that his storeroom was the last spot on earth he wanted to show the pub-

lic. Invariably each suggested that we take pictures of the x-ray department, a patient's beautiful room, or a fine newly-equipped operating room, but not the storeroom. We painstakingly seek expert advice on the proper container for a few thousand dollars' worth of radium, but give scant thought to the storage of tens of thousands of dollars' worth of supplies dispensed in the average hospital each year.

Why a central storeroom? The architect asked this question, and these were the answers I gave him.

1. One individual can look after the average hospital storeroom, attending to receiving, dispensing inventory, and telephone calls almost simultaneously.
2. No time is lost by the storekeeper running back and forth to his various storerooms.
3. A much more accurate inventory may be kept when supplies are concentrated in one room.
4. Re-handling of supplies is obviated.
5. Duplicating of stocks is less likely to occur.
6. Availability of supplies affords the storekeeper no excuse to say he does not have something on hand when he is merely too lazy to go to the out-of-the-way storeroom to look for it.
7. Visual control is facilitated. Despite the virtues of the supply control card, which we shall discuss later, it isn't a bad idea for the storekeeper to keep a watchful eye on his stocks. He may see the supply of some commodity running low that has been overlooked when the supply card was checked.
8. Dispositions may be saved and the frequency of temper tantrums reduced. (Did you ever lose your temper trying to locate the storekeeper and have him off in some distant room getting gauze?)

As it is rarely architecturally possible to devote so large a single space to storage, one must rely on branch or adjunct storerooms where perhaps one classification of

supplies, such as linens, groceries, or drugs, is kept. Or one may be obliged to store all the big barrels and crates in an auxiliary storeroom, transporting a small supply to the main storeroom for weekly dispensing.

Where shall the storeroom be? In the rear of the building. Accessible to delivery trucks. Removed from patients' quarters so they will not be disturbed by noise of delivery trucks, unloading of supplies, and opening of crates and barrels. Accessible to freight elevator and various divisions using bulky supplies, such as dietary and laundry. It should not be adjacent to employees' rest rooms.

In her excellent book, *The Storage and Issuance of Hospital Supplies*, Miss Nellie Gorgas recommends a minimum of thirty square feet per bed. However, this subject of size presents many variables, for no two hospitals of exactly the same bed capacity require identical storage space. In determining the amount of space to be devoted to storerooms, all of the following factors must be considered:

Type of ownership. Municipal hospitals usually use uniform supplies; therefore, less storage space is required. In private hospitals—modest or luxury service—more storage space is required. For example, where private duty nurses will be frequently called, far more linen is used for we all know the first thing every "special" does when she goes on duty is to change her patient's bed linen. Hence, more linen storage is required. Private hospitals frequently have different china and silver services for various classes of patients so more space is required for these items.

Type of service, general or special. For example, in an orthopedic hospital much space must be planned for splints and bulky orthopedic equipment.

Will the hospital have a school of nursing? If so, storage space must be provided

for textbooks, school laboratory equipment, uniforms, capes, etc.

Location of hospital. If located in a large city close to markets, frequent deliveries will obviate the necessity for storing large stocks. If located at a long distance from wholesalers, larger stocks are necessary.

Available funds. If the hospital has limited funds for operating expenses, it may not be able to buy in large quantities; hence, huge storerooms are not so necessary.

Floor load. The construction of some hospitals may preclude the possibility of storing too many heavy supplies in any one given space. Much depends upon the construction of the building, whether it has concrete or rock foundations. This must be determined in advance and usually is governed by a city ordinance.

Some years ago I drew a sketch of what I thought would be a fairly adequate storeroom for our hospital—not as large as is recommended but as large as space in our present building would accommodate. It is not an architect's finished drawing and it has many imperfections. It is merely a diagram of the general arrangement that would fit into our hospital picture.

First, we have the receiving entrance at the rear of the building with a lobby large enough to accommodate supplies immediately after they are unloaded. A large scale, flush with the floor, is available for the checking of the weight of large supplies purchased by weight. To the left of the receiving lobby is a room for milk-can storage, accessible to the dairies' delivery trucks, and an eight by twelve foot space for trucks. To the right of the receiving lobby is the storekeeper's office, furnished with desk, chairs, filing cabinet for orders, and wash-basin.

Adjacent to the office is the main store-

room in which supplies are grouped, for convenience in dispensing, in the following classifications:

Medical and surgical	Housekeeping
Dietary	Laundry
China, silver, and glassware	Engineering
Groceries: staple and perishable	Stationery
	School
	Linens

Such grouping is advantageous when special days are designated for the requisitioning of supplies; for example, medical and surgical on Monday and housekeeping on Tuesday. The storekeeper can fill his supply baskets for each division without running all around Robin Hood's barn.

To minimize hauling, it is wise to arrange the dietary storage section close to the dietary department, laundry supplies close to the ramp leading to the laundry, and housekeeping supplies convenient to the housekeeper's office. If possible, the linen and blanket storage section should be closed off from the balance of the storeroom, particularly if the housekeeper be an apostle of the moth-ball school of thought. This is especially advantageous should the housekeeper be designated to dispense linens instead of the storekeeper.

For the convenience of the storekeeper in sorting supplies and filling requisitions, we have placed through the center of the main storeroom three long counters with shelves and drawers beneath for the storage of small supplies. Around these counters is a six-foot aisle. If this is looked upon as a squandering of space, remember that the storekeeper must have elbow room if he is to work efficiently. When one considers the large crates and barrels and the width of trucks, one cannot begrudge him this space. A three-foot aisle between the rows of shelves at the sides of the room

is ample as trucks need not proceed through these smaller aisles.

Shelves. The secret of finding sufficient space is the utilization of every inch by the correct spacing of shelves. For certain supplies, shelves may be placed eight or ten inches apart, thereby making it possible to double the shelf space in an area where formerly the shelves were spaced eighteen or twenty inches apart. In the grocery section, a space one inch above the top of the cans is sufficient for handling. Also, there is no need to build shelves twenty-four inches wide for items ten inches long. By building our shelves to fit the commodity, we can literally double our storage space. Where large, low space is devoted to heavy barrels and drums, the space above may be utilized for shelves for lighter items.

Once the spacing and size of shelves have been decided upon, the question of material used for them comes to light. We doubtless are all agreed upon the superior qualities of metal shelving, such as durability, resistance to fire, economy of space (usually only one eighth inch thick), safety (no danger of storekeeper encountering splinters).

On the other hand, if the cost of metal is prohibitive, wood will suffice. Slatted wooden shelves, which are cheaper still and have the added advantage of permitting circulation of air, are particularly adapted to the storage of many commodities, such as rubber. Moreover, many items light in weight and large enough not to fall through the slats can just as well be stored on this inexpensive type of shelf. Every storeroom should be equipped with an automatic sprinkler system, anyway, so I think the fire hazard may well be discounted when selecting material for shelves.

The storekeeper will be grateful if

shelves are built no lower than twelve inches from the floor, especially if he is subject to lumbago, and for the same reason he will appreciate having the platforms for heavy objects as low as six inches from the floor, which will still provide for clearance of the water from the hose used in cleaning. The menace of leaking pipes and backed-up sewers during a heavy rain-storm should warn us against shelves or platforms lower than six inches.

Lights. Electric ceiling lights require wire guard protection and a multiplicity of low wall electric outlets should be provided for the scrubbing machine, electric fan, and extension cords. The latter will come in handy when the storekeeper on a dark day tries to find a needle—if not in a haystack, at least under a low shelf on the floor. Switches for ceiling lights should be so arranged that only one section need be lighted at a time. While the storekeeper is dispensing groceries it is not necessary to have the medical and surgical section emblazoned in a glare of light.

Doors. All doors should measure four or five feet wide for the clearance of trucks and large crates and be provided with metal kick plates. If the cost of metal is prohibitive, a heavy battleship linoleum reinforcement may be substituted. Grilled doors, in place of solid ones, are recommended for the sake of ventilation if the dust hazard is not too great. Dutch doors with shelves for dispensing supplies are an essential.

Windows. All windows should, of course, be locked and protected by locked metal guards. Vents placed near the ceiling on the corridor side makes for cross ventilation and, if shelf space permits, high windows of wire-encased glass opening into the corridor to give borrowed light are recommended.

To save space, place radiators under

windows. The amount of radiation, lights, and specifications for the automatic sprinkler system must be worked out by specialists in these fields. No set rules can be made because the size of the room, climatic conditions, and the direction of exposure will be deciding factors.

Floor. The floor should be of a material that can be flushed out with a hose and one that will withstand the traffic of heavy trucks and the rolling of barrels—quarry tile for appearance though concrete will suffice. To facilitate the drainage of water, the floor should have a good slant toward drains and plenty of drains should be provided—a frequently overlooked feature that cannot be emphasized too strongly. Faucets should be provided for the hose used in flushing the floor.

Walls. If the budget will permit, the wainscoting or even the entire wall of the storeroom should be of brick. Cove bases at an angle of 45° make for cleanliness and prevent the marring of walls by trucks.

If the storeroom is large, a buzzer or bell system should be installed to apprise the storekeeper of callers at the entrance door when he is in a far corner of the room. A telephone in his office, with extensions in the linen room and far end of the storeroom will save time and steps.

Ramps. Ramps should lead to and from the storeroom for the hauling of supplies. Adequate scales and a wrapping-paper rack are necessities, as well as a truck skid for hoisting barrels and pumps for oil barrels. A ladder on tracks adds to the accessibility of high shelves. All cupboards should have lock and key, particularly those in which silver and instruments are stored. Label holders must be provided for every shelf and cupboard for the ready identification of materials stored therein.

Bins. Stationary bins for the storage of cereals are ideal but sturdy corrugated metal cans, such as are used for ash cans, will serve the purpose. Moreover, they can be turned upside down occasionally for emptying and cleaning, whereas it is difficult to clean the corners of the built-in rectangular bin with hinged lid.

Counters. In mounting counters on a terrazzo or concrete base, one should provide for a concave bevel which will permit the storekeeper to stand close to the corner, with his toes slightly under the counter. Any woman who has had to wash dishes at a sink built over cupboards extending to and placed at right angles to the floor will appreciate this reminder.

Perishable foods. If perishable foods are to be stored in the general storeroom, thought must be given to the planning of a root cellar, refrigerated units, and perhaps the recently perfected deep-freeze units. However, as the requirements vary with the size of the hospital, the accessibility to markets, and climatic conditions, it seems advisable to suggest that such details be worked out with experts who understand the problems and plans peculiar to each institution.

PART III

THERE are many excellent supply control systems with varied features to recommend them, but in the main they cover the same ground of requisition, purchase, receiving, checking, dispensing, voucher, and inventory. As long as I am familiar with the system used in my own hospital, I shall take the liberty of describing it—not as perfect but as a system that we have found satisfactory for many years.

In the Jewish Hospital, St. Louis, all purchasing is done by the purchasing agent, with the exception of the buying of drugs and perishable food supplies, which is han-

dled by the pharmacist and dietitian, respectively.

For all items ordinarily kept in stock, the purchasing agent keeps himself posted as to needed purchases by referring to the supply cards which will be described later in this discussion. For unusual supplies not kept in stock, a form which we call our "requisition on purchasing department" is used. Written in duplicate, one copy is retained by the head of the department; the original is submitted to the superintendent for approval and then turned over to the purchasing agent.

For every purchase that is made a purchase order is written in triplicate. The original is mailed to the firm from which the goods are purchased; one copy is given the storekeeper and the other is retained by the purchasing agent for reference. Before the third copy is filed in the office of the purchasing agent it is sent to the store record clerk so she can insert the order number on her card and move the celluloid indicator to show that the item has been ordered. The final record of the purchase is made after the merchandise is actually received. This intermediary step affords the purchasing agent an opportunity to check on unfilled orders and also precludes the possibility of his duplicating an order that has already been placed.

Many authorities advocate the wisdom of not showing on the storekeeper's copy the quantities ordered, lest he grows careless about actually counting and checking amounts received. We permit our man to have this information so that, if the entire quantity ordered is not delivered, he can immediately originate a back order for his file covering the underage yet to be received. This seems particularly essential nowadays when an order is rarely completely filled at one time. Moreover, the storekeeper, cognizant of the fact that dis-

crepancies will show up in his inventory, does not want to err or cheat in his count.

When supplies are received, the storekeeper lists them on a receiving slip, the duplicate of which he attaches to his copy of the purchase order and sends to the store record clerk. She in turn checks the receiving slip with the invoice and enters on her supply card a complete record of the purchase, listing the name of the firm from which the purchase was made, date, order number, quantity ordered and received, unit price and total price.

We find the large supply card slipped into a pocket of the steel filing cabinet preferable to either the small vertical card file or a storeroom book, for several reasons. This card is large enough to accommodate entries for many months and in some cases for several years. It can be alphabetically filed and will stay in place, as posting is done without taking it from the pocket. This prevents misfiling or loss, as is often the case when cards are filed vertically and must be removed from the file for posting. The card is more easily handled than a large book. The drawer can be quickly removed and placed on the clerk's desk, affording easy access to the records, eliminating unnecessary motion, and saving a great deal of time.

The shallow drawers of these cabinets contain 84 cards, two in each leaf, and for our needs we have found a cabinet containing 36 such drawers ample space. Each card is printed on both sides so it can be reversed for further entries. Filed alphabetically, the cards are grouped according to general classification, such as "Groceries," "Medical and Surgical Supplies," "Laundry Supplies," etc. A transparent celluloid strip at the bottom of the card holds it in place and protects the edge of the card from becoming soiled and worn with continued handling. Under this trans-

parent strip is listed the name of the article and a brief description as to size, quality, or grade. A small colored indicator clipped over the edge may be moved to indicate "low supply," "order placed" or "order filled," enabling the purchasing agent to tell at a glance by its position whether he need order certain items.

At the end of each month, the balance on hand is recorded in the column designed for this purpose and compared with the inventory figure which is shown in red. Any variance is recorded in a book presented to the superintendent at the end of the month for investigation of any shortage that may exist.

The store record clerk has in her office an inventory book in which all supplies are listed in alphabetical order and classified as in the card file. After each requisition day she checks perhaps fifty items, choosing them at random. The storekeeper inserts his inventory figures in the book and returns it to her office. He cannot "pad" his inventory to cover any shortage for he has no knowledge of the figures on the cards, and the store record clerk, having no access to the supply room, cannot "fix" or alter her records. Thus this perpetual inventory prevents leakage and "padding of accounts."

The entire system is under the direction of the chief accountant who, with her experience in handling accounts, appears to be the logical one to supervise it. Weekly summaries are kept by the record clerk and at the end of each month reports are submitted to the chief accountant who in turn presents them to the superintendent. The report for each department is placed on a separate sheet, with columns arranged for each month in the year, so that monthly comparisons may readily be made. In this way, extravagance and poor management can often be detected and corrected. The

average daily census appears in each column because this fluctuating figure has a distinct bearing on departmental costs. When the census is high, a department's expenses necessarily rise, but, with a lowered census, it is natural to expect a decrease in costs.

Head nurses are shown comparative reports listing the cost of supplies and the daily average of patients on each division, as this stimulates competition in lowering costs. No head nurse wants to be considered a poorer manager than her neighbor in a similar ward caring for the same type of patient with a similar daily average.

Supplies are dispensed only upon presentation of a written requisition, signed by the department head and approved by the superintendent. Requisitions from the nursing department are approved by the school principal before being sent to the superintendent. The person receiving the supplies checks them and signs the requisition, which is then sent to the store record clerk for entry on her supply card of goods dispensed.

In requisitioning materials, each department head is required to use a standard nomenclature and articles not so listed will not be dispensed. This simplifies matters for the storekeeper and the store record clerk, as one head nurse may ask for "tongue depressors," another for "spatulae" and still another for "tongue blades."

To distribute the work of the storekeeper and the store record clerk throughout the week, certain days are designated for the requisitioning of the various types of supplies, such as Tuesday for medical and surgical supplies, Thursday for stationery, and Friday for linen.

When the storekeeper fills his requisitions, he places a check opposite each item as it goes into the division's basket. If he

is short an article, he places a zero before that item in place of the check mark. When the requisition reaches the store record clerk, she knows that items preceded by a zero were not in stock and she immediately transfers such items to a new requisition and marks it "transfer requisition." These are again approved by the administrator and given to the purchasing agent so that he can order the needed supplies without delay.

In the case of special requisitions or back orders, the requisition is clipped to the second sheet of the purchase order which goes to the storekeeper. As soon as the item comes in, he perceives by the requisition attached to his purchase order that these supplies are due a certain department and makes immediate delivery.

All supplies are dispensed through a Dutch door provided with a shelf on which the articles may be checked and, as suggested previously, no person enters the storeroom except the storekeeper. This precludes the possibility of any employee appropriating a box of matches or a bar of soap. It also places full responsibility on the storekeeper and affords him no opportunity to blame others for any shortage that may occur.

Every department head is held responsible for the breakage and loss in his department. A requisition on which broken and worn articles are listed in red in the exchange column is sent, after being properly approved, to the storeroom to be filled, just as is any other requisition. The name of the person responsible for the loss or breakage is shown opposite the item and in bygone days a special charge was made against that individual. Employees do not pay for breakage but records are kept and gross carelessness is called to the attention of the offender.

Torn and worn linen, accompanied by a

requisition listing the items, is sent to the linen room for exchange each week. New or mended linen is immediately dispensed to replace that sent down to the linen room, and the torn linen, after being mended, is again dispensed with a value of "no charge" placed after the item on the requisition. Thus, no division need be handicapped while mending is delayed, nor is it charged twice for the same item. A charge is entered against the division receiving the linen only when new articles are dispensed.

A glance at any card will show the purchasing agent:

1. The quantities used in the past for a week, a month, a year, or fifteen years
2. The prices paid all through the years
3. The quantity now on hand
4. The quantity to be purchased

If he is testing a new product he can make comparisons of quantities used and dollars saved.

A review of the cards quickly reveals items slow in moving and those no longer requisitioned at all. Thus he can check on obsolescence and can dispose of or commit to new uses items no longer used for their original purpose.

A perusal of the cards will permit him to investigate why Division 7, which formerly ordered six of an item each week, is now using twelve, and perhaps prevent further extravagance or careless ordering.

All in all, we have found our system of supply control not only a very satisfactory one so far as convenience and economy in handling supplies are concerned but also a very decided saving from a dollars and cents point of view. During the first six months, after considering the added expense of the store record clerk's salary and the new filing cabinet and equipment, we realized a net saving of \$600. Re-

gardless of the system employed, we need the purchasing agent and the storekeeper, so the only added employee is the store record clerk and the savings realized have more than compensated us for the extra salary paid.

We owe our ultimate economies to:

1. Careful purchasing and handling of supplies
2. An accurate store record system
3. Perpetual inventories, with the storekeeper having no knowledge of the data on the cards, and the store record clerk having no access to the supply room
4. Complete system of exchanging in every department in the house
5. Holding every employee responsible for breakage and loss
6. Detailed comparative reports prepared for the superintendent
7. Interesting head nurses and department heads in competitive economy
8. Confirming every verbal purchase order with a written one, preventing the possibility of error in quantity, quality, and price
9. Selecting durable materials and products of proven merit, which, though perhaps more costly at the time, will prove a saving in the end
10. Last but not least, the conscientious efforts of a purchasing agent, a storekeeper, and a store record clerk who put honesty and accuracy before personal interests. Dishonesty and carelessness do not go hand in hand with economy.

The purchasing and storage set-up in my hospital and perhaps in yours leaves much to be desired, and none of us can achieve phenomenal changes overnight. The reformer does this, and that is why reformers always fall out among themselves. To the conservative, what exists must not be changed; he dreads being inconvenienced by the new. What must be done is to compromise. Somewhere between the perfection at which the reformer

aims and the status quo of the conservative lies the point where we must attain that balance which is synonymous with good management. Management is a compromise. It is what the word means—that somehow, with what there is, we must

manage. So, if we cannot rub Aladdin's lamp and produce a model storeroom, let us compromise with a good—and not necessarily complicated—system that will keep step with the other progressive features of our hospitals.

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CHAPTER XXV. FOOD SERVICE

1. The Hospital Diet at Today's Food Costs, *by Mrs. C. Milo Connick**

A LITTLE boy was playing around the house on a rainy day. To his delight he found a bright, shiny, new penny which had been brushed aside into an out-of-the-way corner. Five minutes later he had swallowed the penny. He quickly ran to his mother and asked, "Mother, do you notice a little change in me?"

I doubt if the mother could see the change, but certainly it is more than a little change which we see when we examine today's prices in comparison with those of a year ago. At the Massachusetts General Hospital we observe the rise in prices to be about 25 per cent.

What does this mean in a month's time? A rise of six cents a pound in the price of butter meant that during the month of September we spent approximately \$300 more than the same month a year ago for this one item alone. A rise of ten cents a pound in the price of fresh beef would have meant an expenditure of \$1,600 more for that item, had we used the same amount. Fish, previously something to rely upon as a source of inexpensive protein, rose nine cents a pound—costing \$500 more per month than a year ago!

These are startling jumps in the cost of food. Let us consider, then, how we can maintain our hospital diet in the face of these advanced prices.

The moment we approach anything from the standpoint of cost we are forced to decide upon standards. Whether we buy a Ford car or a Packard usually depends upon what we call our "standard of living." It would, rather, if anyone were buying a car today. If we are buying floor

covering, there are different grades from which to choose—depending upon the standard we want to maintain. Today we are considering the buying of the hospital diet.

Can we afford, in these days, to serve adequate diets—diets which contain milk, meat, butter, eggs, fresh fruits, and vegetables? These are uncertain times. We are almost forced to agree with the lumberjack who habitually ate his pie first "because life is so uncertain." While such a shortsighted policy of consuming a diet may be condoned, in planning diets we must look to the future.

The Army feeds its men scientifically. It gives them optimum amounts of all known dietary essentials. We upon whom the feeding of the civilian population depends must be equally farsighted. We cannot afford, in the name of a national emergency, to make cuts in our menus which will bring them below the level of adequacy. This would be shortsighted economy, to be compared with the man who denied himself medical attention until he put his son through medical school. The long-looked-for day arrived and his son received his M.D.—but the father's health was so far gone that nothing could help him.

We, in America, will be in an equally tragic position if, in these crucial times, we neglect those things which make for long-term health. The most important of all health insurance is proper food.

We have arrived, then, at one of our

* Adapted from *Hospitals* 17:108-110, 112, 114, 116, 118, Jan. 1943.

standards. We shall buy an adequate diet. But how do we know whether or not our diets are adequate? A little over a year ago the Committee on Foods and Nutrition of the National Research Council set up a chart of daily allowances. This chart covers not only calories and protein, but calcium, iron, vitamin A, thiamin, ascorbic acid, riboflavin, nicotinic acid, and vitamin D. The amounts are given in grams, milligrams, and international units. This information has been widely published and has become the "yardstick" for measuring the adequacy of diets.

It is the job of your dietitian to evaluate by means of this yardstick the diets she is serving. I should like to warn, however, against an uncritical reliance upon her. She has no magical powers by which she can take a sweeping glance at a day's meals and pass upon their adequacy. To do so would be like trying to estimate the number of miles you could travel on a tankful of gasoline—without knowing what kind of gasoline was in the tank.

Your dietitian must periodically calculate a typical day's diet, using actual numbers for the quantities of each food substance. Then she must compare the result with the yardstick already mentioned. If she does this every three months or so, her estimate will therefore mean something. This type of calculation takes time. It cannot be heaped upon a dietitian who is overburdened with routine duties.

If your dietitian is one who is too busy with small business to attend to the big business of her department, investigate the possibility of shifting some of the routine duties to a responsible untrained person. If this would increase your payroll and you are undecided as to whether you can afford it, remember this: the health of your patients and personnel hangs upon your dietitian's ability to plan adequate

diets. Do not load her up so much that she does not have a chance to calculate her diets regularly and to organize her department to supply a thoroughly adequate diet.

The second standard to be considered is the aesthetic. To set up this standard we must decide how much we can afford to spend to make a diet attractive.

Some recent research in the field of low-cost diets has resulted in the conclusion that an adequate diet can be bought for fourteen cents per person per day at retail prices. This is somewhat lower than the per capita food cost in your institution. The diet contains no fresh fruit. The vitamin C is provided by serving canned tomatoes three times a week and raw cabbage four times a week. Yet it does meet the standards of an adequate diet.

We might even adopt the extreme simplicity of the Chinese peasant who eats a thoroughly adequate diet consisting of just two articles—a breadlike cake composed of three kinds of meal, and a vegetable similar to our cabbage.

At the other extreme, we might note the menus of our private room patients. At the Phillips House years ago we even served lamb chops for breakfast. The menus of the other two meals were equally elaborate.

Somewhere between these two extremes we must establish our aesthetic standard. It may have to be changed from what it was one year ago. In almost all institutions it has already been changed.

The budget dictates the aesthetic standard. We at the Massachusetts General Hospital have changed this standard for our personnel and certain of our patients. We have frankly stated the case to our personnel, and asked them to give their cooperation as their part in the total war effort.

We have eliminated expensive relishes

such as olives. We no longer have jelly to go with the breakfast toast. We are not serving five-rib roasts of beef any more. No second servings are allowed on desserts or fancy salads. Only one breakfast fruit is offered. This cuts down cost, because when two fruits are offered, both are likely to be taken.

In making these changes we have tried to retain all those things which mean most to our people. For example, we offer a sandwich spread to our nurses for lunch. This can be used by the person who dislikes the main dish on the menu. These spreads, on the whole, are more expensive than the articles which they replace, not only because of the ingredients but because of the labor involved in making them. Yet the sandwich spread contributes so much to the enjoyment of our people that we feel it is worth keeping. We shall eliminate it only in case of dire necessity.

We are offering the inexpensive cuts of meat more frequently at the evening meal, but at the same time we are offering a green salad several times a week in addition to the hot vegetables. This is an inexpensive addition, and it pleases many people.

Our house officers are fed without charge in a cafeteria which also serves staff men, technicians, secretaries, and others who pay for the food they eat. Our selection at the noon meal is rather wide. The prices we charge are designed to cover cost only. It is not our purpose to make a profit.

Variety in itself is expensive. Small amounts of several different items left at the end of a serving period cannot easily be used. Extra labor is necessarily involved in the preparation of a variety of foods.

How, then, should we cut expenses in this cafeteria? Should we set a limit on the amount a house officer might choose—and

continue to serve the same wide variety to those who pay? This question was submitted to the chiefs of the various services. They decided that they would prefer to have their own choice limited along with those other patrons who pay for their food rather than to impose a limitation upon the house officers.

Consequently, the total food cost of this pay cafeteria has been cut in two ways: first the more expensive items have been eliminated; and second, the number of items has been reduced.

Our patients' menus also have been altered to some extent. Expensive nonessential items, such as cocomalt, are no longer offered. Choice brands of preserves and jellies which come only in small-sized cans have been replaced by products of good grade which can be bought in number 10 cans. Ultra de luxe foods, such as roast squab and broiled live lobster, have been taken off our private menus.

It becomes apparent, then, that the aesthetic standard must fluctuate—though we will firmly adhere to the standard of adequacy. The problem of advanced prices is somewhat clarified by recognizing the clear-cut distinction between these two standards—and deciding where, within the range of adequacy, we shall establish our aesthetic standard.

The challenge of today's prices lies in the game of cutting cost without changing either the standard of adequacy or the aesthetic standard. Let us look at three ways by which this can be accomplished: (1) by the elimination of waste; (2) by reorganization; (3) by an intelligent buying policy.

One of the greatest sources of waste in any hospital occurs in the use of such items as milk, cream, butter, bread, and oranges. These items are commonly sent to the floors in bulk instead of individual

servings. Thereafter, their distribution and conservation depend upon the nurses. The nurses are primarily concerned with the nursing care of their patients. Preoccupied as they are with their job, they do not give careful supervision to the distribution of food. This kind of a set-up encourages waste—and petty thieving by the personnel.

Placing responsibility for food distribution with those who have no responsibility for its cost is always a wasteful procedure.

Some hospitals have eliminated this type of waste by keeping all food in the dietary department. Whenever a nourishment is needed it is telephoned to the diet kitchen and sent out by dumb-waiter. Some hospitals have a nourishment maid on duty throughout the twenty-four hours; others carry through this system during twelve hours, and send bulk amounts of milk and fruit juices to the floors for use during the night.

This type of organization, while highly efficient, depends somewhat upon the physical layout of the hospital building. Unless there is adequate means of sending the nourishments to every floor, the plan will not work. Then what is the alternative? The answer lies in an efficient method of keeping records, so that each floor will be charged with its bulk food separately. The total cost of the bulk food sent to a given floor, together with the number of patients, should be drawn up weekly. But you will need to go further than this. These figures must be analyzed to see how much milk is being used per person, how many eggs, how much fruit juice. The results in many cases will be startling.

The second major source of waste upon which we should center our attention is that resulting from poor supervision. In

every hospital there is the problem of plate waste—the cooked food which is served the individual and comes back uneaten. The average administrator is likely to shrug his shoulders and conclude that nothing can be done about it, “because,” says he, “you cannot expect sick people to eat like healthy ones.” If sick people do not eat like healthy ones, let us be very sure that they are not fed like healthy ones. Much can be done to adapt the size of portions to the patients’ needs. How can it be done? It is a matter of educating the person who does the serving. Regardless of whether that person is a maid, a graduate nurse, or a student nurse, she can be educated. It is a matter of constant emphasis. It should be done by someone who is vitally interested in keeping food costs down. That person is your dietitian.

She can, moreover, study the plate waste to see what dishes are unpopular. At our hospital we have found that if we serve our ward patients “Revere Beach food” for supper, they eat it. By “Revere Beach food,” I mean frankfurts and rolls, hamburgers and buns, cold cuts and potato salad. If we serve them the traditional sick person’s food—creamed eggs on toast, or escaloped salmon—a large part of it is returned untouched. Is it any wonder, then, that when the visiting hour comes ’round, we observe relatives and friends coming in with bags of fruit or bottles of pop to supplement an unattractive diet?

Regardless of how prejudiced one may be in favor of simple creamed foods for sick folks, the sensible thing to do is to feed them what they will eat within the bounds of gastric discretion.

Much plate waste can be avoided by taking a census, a half hour before each meal, of those patients who are able to eat. The nauseated patient or the patient who is at x-ray will be omitted from this count.

Out of a floor of fifty patients probably five full trays of food will be saved at each meal. This is a real saving!

The dietitian can see to it that bread, butter, and milk are not put on every tray for every meal regardless of whether the patient eats them. Much waste occurs if such foods are served indiscriminately.

The dietitian can see, also, that food is served piping hot—provided you have seen to it that she has facilities that make this possible. This is a big point in cutting down plate waste. Half-warm food is half eaten. Hot food is consumed with relish.

She will be able to do ward teaching. It is possible to point out to patients the necessity of drinking milk and eating eggs and vegetables. It has been our experience that by far the great majority of patients will eat foods which they actually dislike if the value of such foods is pointed out to them. This kind of instruction benefits the patient and also cuts down waste.

We have discussed, so far, types of waste which may occur on either ward or private floors. The third major form of waste is that which occurs in connection with the selective menu with which most hospitals provide their private patients. Have your dietitian make a study over a three-month period of all items offered on your selective menus, to determine which are popular and which are not. When the study is completed, cut out the dead wood. It is expensive to offer items which are chosen by only a few people. We took meat off our Phillips House breakfast menu because only 2 per cent of the people selected it. Suppose, for example, that four people had ordered chicken hash for breakfast. Six or eight servings would have to be made, to allow for those admitted late at night, and those who choose their food on the spur of the moment. We would average a 25 per cent waste on this item. Twenty-five

per cent waste on any item is too much!

To further cut down waste on your private menus, adapt your menu to your facilities. If your food, after being cooked, must be transported in a heated truck for the length of half a city block, your menus should not include soufflés, omelets, or club sandwiches. These foods must be served as soon as they are prepared. If an omelet has fallen flat or a club sandwich has become soggy by the time it reaches the patient, neither will be eaten. They will simply go into the garbage pail.

After using every possible means to eliminate waste, there will still be garbage. What shall we do with it? By all means analyze it and weigh it. How else can you know whether the measures outlined above are working? Have all inedible garbage collected separately from edible garbage. Then weigh what could have been eaten. It should be kept as low as two or three ounces per patient per day. A figure higher than three ounces is your signal to re-open more energetically than ever your campaign for the cutting down of waste.

In the fifth place, we ought to make thievery impossible. The inventory is absolutely necessary to detect and prevent theft. Some institutions find it practical to keep a running inventory. This enables them to know each day the exact amount of all food on hand. Other institutions keep a running inventory on staples only and take a monthly inventory of all other foods. Whatever the system used, certain basic elements are essential—a record of all food bought, a record of all food used, and a periodic check of one against the other. If you are not doing this at least as often as once a month, you are leaving the way wide open for petty thieving.

It pays, also, to find out whether you are feeding more people than you should.

This is bound to happen unless carefully checked. From the staff man to the floor-washer there are those who like to get a free meal. The intern who complains most about hospital food is the one who brings his wife and all of his in-laws into the hospital dining room to eat Sunday dinner free of charge. With employee turnover as rapid as it is today, it is impossible for the dining room supervisor to detect the stranger who might slip in for a free meal. This type of leakage can easily be taken care of by furnishing identification cards for those entitled to their meals.

The problem of eliminating waste is only one of three points in the program to cut costs without lowering the aesthetic standard. The second point is organization. The time when we are forced to economize is the time when every aspect of organization should be critically examined. First, is your hospital one in which food service is a divided responsibility? Is the food prepared by the dietary department and served by the nursing department? This is a costly arrangement. The dietary department should be responsible for the food until it reaches the patient. Otherwise, the shifting of responsibility from one department to the other makes for waste and inefficiency.

Let us take an example. Miss Smith is an excellent dietitian. She is conscientious and capable. The food sent out from her kitchen is well prepared. Miss Jones is an equally capable head nurse. She has good executive ability. Her patients receive superior nursing care. Yet they complain about the food which they are served. The plate waste from her floor is four to five ounces per person, instead of two or three. Why? This floor is a very busy one—especially so with the present shortage of nurses. Miss Jones is very likely to be accompanying the doctors on rounds when

the food trucks arrive on her floor at 11:30. She delegates the serving to a student nurse. The student is delayed for twenty minutes to finish her noon temperatures and medications. When she reaches the serving kitchen, she finds the cold food lukewarm and the lettuce wilted.

If food service is still a divided responsibility in your hospital, visit the busy ward floors at meal time. Do not let anyone know you are coming. You will see trays on which the food has been carelessly served. You will see servings wholly out of proportion to the needs of the patient. When the serving hour is over, perfectly usable left-over food will find its way into the garbage barrel, instead of being returned to the kitchen. Is this type of waste occurring three times a day in your hospital?

Food is not the primary concern of the nurse. She has no responsibility whatever for the total food cost per month in your hospital. Yet she controls it as much as the dietitian. Because she is not held responsible, she allows all kinds of waste to occur which could be prevented. In our hospital, the garbage from ward floors where serving is supervised by the nurses is 50 per cent more than that from those floors which are under the dietary department.

This is not an indictment of nurses. But it is a serious indictment of a system which allows them to control costs for which they assume no direct responsibility. The supervision of a single dietitian may be spread over two or three floors, if advisable, with a maid under her direction in each serving room, and student nurses to assist her. But make the dietitian responsible!

Adequate supervision is never an extravagance. A dietitian added to your staff for this purpose will save her salary several times over.

When you have put all food service under the dietary department, find out, in the second place, if you are serving too many special diets. Are diets being made up in your special diet kitchen, which are only minor variations from the house menu? If so, it is wasted work, and wasted food. It is ridiculous to treat a hyperthyroid patient as a unique dietary problem. It is true that he needs more food than the average patient. The dietitian in charge of serving on your floors can easily make the house diet adequate for such a patient by a few simple additions.

Ridiculous as it is to make a special diet for a hyperthyroid patient, it is even more ridiculous to make certain blanket additions to the house menu for all those who need a high caloric diet. In some hospitals, all those for whom the doctor orders a high caloric diet are given an extra slice of bread and butter at each meal, an extra vegetable, and an extra fresh fruit. Such an arrangement falls far short of the mark. Those who are undernourished usually have too little appetite to look an ordinary meal in the face—to say nothing of three meals with extras.

High caloric diets should not be treated as special diets. Neither should they be dispensed with certain wholesale provisions which make them too large for all but a small percentage of the cases. They should be handled by the dietitian in charge of serving on the floors. She is the only one in a position to do it with an eye to economy as well as to the needs of the patient.

The provisions made for the high caloric diet can also be made for other diets which are only minor variations from the normal. If, in your hospital, low caloric, low fat, or high carbohydrate diets are still being sent to the patients from the special diet kitchen, you are wasting money.

Now what shall we do with Miss Bernice T. Overdupois, who is a nurse in your hospital, and wants to regain her girlish figure? Can we afford to give her and countless of her kind a special reducing diet served in the dining room? Or shall we let her remain fat?

The problem, of course, goes deeper than that. Whether your personnel numbers fifty or five hundred, there are bound to be several whose well-being requires a deviation from the regular menu. At the Massachusetts General Hospital we have cut down the requests from our personnel for special diets by including certain items regularly on the menu. Skimmed milk is served as well as whole milk at noon and night. More skimmed milk than whole milk is taken. Whenever a salad is served, three kinds of dressing are placed on the cafeteria counter—French dressing, regular mayonnaise, and fat-free mayonnaise. As much fat-free mayonnaise is used as the other two put together. With these simple additions to the menu few special diets in the dining room are necessary. Elimination of unnecessary special diets is a real labor-saving device!

The organization of recipes and portions should be scrutinized. Impossible to apply business principles to recipes? Not at all. If five hundred people are to be fed escaloped potatoes, it should be known exactly how many pansful must be prepared. This can be known, because we can easily know the number of servings per pan. There should be on file, in the kitchen, a typewritten card showing how many bushels of potatoes, how many quarts of milk, and how much butter are required for the amount of escaloped potatoes to be made.

If this information is compiled for every item served in the hospital, immense waste will be avoided. The amounts of raw food materials used will not be left to the dis-

cretion of your cooks. Ordering can be done with exactitude. There can be no question as to size of servings, for portions will have already been standardized at so many per pan. Petty thieving, undercover eating, or careless serving can be readily detected.

Now the success of putting recipes on a business basis depends upon the answers to three questions. Does your dietitian have the organizational ability to carry it through? Does she have the time? Are you employing cooks who are capable of cooperating in such a program? If your dietitian has not had sufficient training, you cannot do it. If she is overburdened with lesser duties, she cannot be expected to reorganize any part of her department on a more businesslike basis. If salaries are not high enough to attract competent cooks, the situation is hopeless. Rest assured, however, that if any of these three obstacles is preventing the businesslike organization of the recipes used in your hospital, you are taking a money loss which you can ill afford to take in the face of today's prices.

Be sure that you are not buying ready-made products which could be prepared in your own hospital kitchen. Every time you buy a can of beans or a can of soup, you are losing money. The same is true of chocolate sauce and mincemeat. These are foods which should be prepared by your own cooks.

Everything possible should be made in your own kitchens. At our hospital, we make our own bread at a saving of \$1,500 a year. This bread is a superior product, as evidenced by the fact that our nurses eat twice as much bread now as they did when we bought it.

What is even more important, our own bread is more nutritious. Our dark bread is made of two parts whole wheat flour to

one part white flour. Commercially baked whole wheat bread is usually made in the reverse proportion—one part whole wheat to two parts white. It is a fact that whole wheat flour furnishes better nutrition than white flour, no matter how many synthetic vitamins and minerals are added to the white flour. Our bread, then, which has twice as much whole wheat flour as the commercial bread, is distinctly superior nutritionally.

Our baker has experimented with high vitamin yeast, wheat germ flour, and soy bean until he is now giving us a white bread six or eight times richer in vitamins and minerals than commercial white bread. And this superior nutrition is provided at a saving of \$1,500 a year! If you have the equipment to bake bread in your hospital, by all means use it! The extra labor required will cost you less than three-quarters of a cent per loaf. If you are not equipped to make your own bread, this will be one of the first changes you will want to make when such equipment becomes available again.

We also freeze our own ice cream. We buy an ice cream mix which contains all ingredients except the flavoring, fruit, and nuts. We add these before freezing. Our primary object in making our own ice cream is to supply a better product. We are able to do this and at the same time effect a small saving to the hospital. Everything which can be made in the hospital means a saving.

Let us examine the organization which exists in our hospitals for feeding the personnel. The least expensive way is cafeteria service. The individual cannot only pick up his own tray full of food but return his empty dishes to the place where they are washed. This feature of returning soiled dishes means little inconvenience to each person, but by eliminating the

service of bus boys, it amounts to several hundred dollars' saving in a month's time.

Waitress service is distinctly a luxury. Whether such a luxury can be provided in the face of advanced food costs and scarcity of labor is a question for the individual administrator to decide.

Employees in the lowest salaried brackets constitute the biggest feeding problem of all. This situation, arising out of the traditional paternal role of the hospital, is a source of dissatisfaction both to the institution and to the workers.

Last month we started a pay cafeteria to meet this problem. We started it for two reasons: (1) to improve morale, and (2) to eliminate waste.

There can be no question that the pay cafeteria is more satisfactory to the worker. The increase in his pay check, amounting to seventy-five cents a day, is not a meal allowance, for there is no compulsion to eat at the hospital. If he chooses, he can get three nourishing, well-balanced meals in the pay cafeteria—at a cost of seventy-five cents per day. The range of choice is wide—including, at noon, two soups, a meat and a luncheon dish, four kinds of vegetables, two kinds of salads, and so on, down through the menu. This arrangement is especially satisfactory to those employees who work a straight eight-hour schedule and ordinarily eat one meal a day at home.

The saving to the hospital lies in the prevention of waste. Under the old system, our people took far more food than they ate. Determination to get all that was coming to them made them take a full dinner regardless of whether or not they intended to eat it. Not only did they waste food but many who needed 3,000 calories were eating 5,000.

Paying for their food makes the personnel more conscious of food conservation.

We sell two slices of toast for a penny. The first morning a man came back to the counter for one additional slice of toast. When told that he could have two as cheaply as one, he still took only one. "Because," said he, "I would not want to waste it!" I am told that the counter girl fainted.

Those who complained every time baked macaroni and cheese were served them under the old system, now welcome this dish as an inexpensive luncheon. It is their money which pays for it now!

For these two reasons—better morale and greater economy—a pay cafeteria for employees is immensely worth while.

Another point of organization concerns the hospital social calendar. Social calendar in a hospital? Yes—the nurses' annual tea, the trustees' monthly luncheon, the dinner given to residents at the end of their terms. Many hospitals have several such social events each month for which the food is included in the yearly food budget. They are fine in normal times. Perhaps they should be retained even in wartime. This is a question which should be considered very carefully. Are we justified in furnishing food for special occasions, if this means lowering the standard for those who depend upon us for their three meals a day?

We have seen that costs can be cut without lowering the aesthetic standard, by eliminating waste and by reorganization. Let us consider changes in the buying policy which will save us money.

The folly of buying prepared foods has already been discussed. It is equally extravagant to buy widely advertised brands uncritically. Set up your own system of testing and comparing various brands. Then buy advertised brands only if you are getting your money's worth.

Investigate the units in which you can

buy various foods. Are you buying anything packaged or bottled that can be obtained in bulk? Are you buying in the largest unit which is compatible with your needs? Sweetened condensed milk can be bought in a 14-ounce can or a 680-pound barrel. It will keep two weeks or more under refrigeration after being opened. Be sure that you are buying the larger size if you can use it within that period.

Today the smart purchasing agent makes a careful comparison between the cost of canned and frozen fruits. The day is gone when we can assume that canned fruits are an inexpensive dessert. The jump in price has been such that blue plums and applesauce are the only canned fruits which the average institution can afford to serve.

In computing cost, allowance must be made for the weight of sugar and water included in canned fruit. After adequate allowance has been made for these, frozen and canned fruits cost about the same. The fresh flavor of frozen fruits, however, makes them more desirable.

Frozen eggs have the same food value as fresh ones, and they are satisfactory for cooking, baking, and even scrambling. They constitute a real saving in original cost and in the elimination of waste. Out of every case of fresh eggs being cracked

and opened by the average cook, close to twenty eggs are wasted by remnants left in each shell. There is no such waste connected with the use of frozen eggs. Neither are there any bad eggs to be thrown out.

While revising your buying policy, examine all items being stocked for your dietary department—not only foods, but paper supplies, cleaning supplies, linen dishes, and silver. Are they worth to you what you are paying for them? Are you stocking two kinds of cleaning preparation where one will achieve the same end? Are you using a silver polish which is more expensive than another brand and does no better work? Are you furnishing brushes which are rarely used? Supplies of all kinds add to the cost of any department and should be considered in a program to cut costs.

How, then, can we maintain an adequate diet in the face of today's food costs? This can be done by the elimination of waste, the reorganization of the food service, and the revamping of the buying policy. These steps, however, should not be undertaken with an eye to the maintenance of a rigid aesthetic standard. There is only one rigid standard—the standard of adequacy. The aesthetic standard, of necessity, is tempered by the times and seasons.

2. Installing a Pay Cafeteria for Personnel, *by Mary M. Harrington**

THE primary reasons for the installation of a pay service in a hospital should be satisfaction and economy in feeding of personnel. If the employees are to be given an "all cash" wage, it becomes necessary to provide an eating place for them during the working period. In the hospital, provision must be made for serving meals twenty-

four hours a day. This means that meals must be served four times a day and every day with provisions for late meals. As soon as food is being sold to the personnel, the relationship between employer and employee changes, and the consumer becomes a buyer with all the rights and privileges

* Adapted from *Hospitals* 16:90-92, Feb. 1942.

thereof. It must be expected that many of the employees will eat away from the hospital and personnel meals decrease from 16 to 25 per cent. No coercion should be used to require employees to eat at the institution. The hospital, in making this change, accepts the responsibility of business competition but has the added obligations of considering the employee's health and budget. The only means which can be used to encourage the personnel to patronize the "pay service" is to serve food which will sell on the basis of its quality, price, and the environment in which it is served.

The policies of operation of this type of service in the hospital should be carefully studied, instituted, and supported by the administrative forces to promote successful operation. The dining rooms should be conducted in the manner of any commercial cafeteria without privileges to any special groups eating in the same dining room.

Three different types of food selection seem to be commonly used by hospital cafeterias and may be stated as follows: a single menu at a stated price; parts of a menu at item prices; a wider variety of foods, similar to that offered in industrial cafeterias and school lunchrooms.

Some institutions operate only one cafeteria for all hospital personnel, while others operate separate ones for the different hospital groups. The physical layout may determine the number of cafeterias considered necessary, but the chief consideration should be that of the low-income personnel. Food habits, the budget of the employee, and the nutritional status of the individual should determine the variety of foods offered and the prices charged. It would seem desirable to promote the selection of foods essential for good nutrition, and these foods should be sold at a slightly lower price.

Hospital cafeterias are operated for the satisfaction and convenience of its personnel and guests, but are not in competition with public eating places. Since these dining rooms are not open to the public, guests at the hospital may be permitted to eat in the cafeteria upon presentation of an identification card.

The physical plant should be adequate to permit the preparation of many more foods at one time and have the necessary equipment for such preparation and space for sufficient display of foods on the counter. The investment of a large amount of money to provide such a plant for the sole purpose of introducing this type of service requires serious study and should be made only with consideration for the satisfaction of the personnel. An inadequate physical plant decreases efficiency of preparation and service with increased cost of overhead and work.

The allowance for food which is given to personnel is based upon the cost of an adequate diet consisting of a reasonable variety of foods. This allowance will vary with the price schedule which is decided upon by the particular cafeteria. After the price ranges of the menu had been accepted at Harper Hospital, an allowance of \$22.50 per month was made to the women employees and, since the energy requirement for men is about 5 per cent higher, their allowance was fixed at \$24.00. A study of the cost of "A Moderate-Cost Adequate Diet" according to Steibeling's standards showed that such a diet could be selected with reasonable variety at prices ranging from 60 cents to \$1.29 per day. The average check per meal has been calculated since this cafeteria plan has been installed. Studies of the checks of different groups are made periodically.

A food cost accounting system should furnish detailed data promptly enough to

be used practically and should not cost more than the resultant savings. "Food cost accounting should be done in the clearest, simplest form possible to derive the information needed to operate the pay cafeteria as an independent unit" (Troutt). The hospital operates for the patient, and the cafeteria must be self-sustaining or it will increase the hospital operating costs with a resultant increased cost to the patients. Unless the proper distribution of costs is carefully controlled, this may influence, decidedly, the total hospital expense.

A well-organized plan of food pricing necessitates standardization of recipes and serving portions with careful modifications in price in accordance with market changes. Serving portions may be standardized on the basis of accepted restaurant portions. A high standard of food in portions of accepted quantity can be served if the raw food cost is maintained at 40 per cent of the sales dollar. This standard may vary with the type of cafeteria being operated, and in school lunchrooms this cost may be as high as 60 per cent.

Food control aims to maintain a consistency in the quality and size of portions of food at a minimum cost. It is concerned with the yield and utilization of all food purchased and should quickly reveal changes in the size of serving portions, use of leftovers, and leaks. Food control is dependent not only upon adequate supervision but also upon a checking system which records the distribution of all food. Various techniques may be used to secure this information according to the type of institution, but all serve to show the utilization of all food purchased. It also serves to prevent consumption by personnel elsewhere than in specified dining rooms.

The master menu is planned for the patient, and additional foods to offer sufficient variety for the selection of an adequate diet

and to meet the food likes of the clientele comprise the cafeteria menus. The menus for the low-income group differ slightly from those for the staff due to the difference in popularity of certain foods in the low-income group.

The desire to take food from the cafeteria for patients may present many problems. The menus for ward and private patients are planned with a definite raw food cost per meal and portions are standardized accordingly. The size of portions of food served patients is naturally smaller than for active personnel. Substitution of the larger portions increases the cost of patient meals. The pay service is an independent unit. Its costs must be separately controlled and its expenses must balance with receipts to prevent an increase in the cost of hospital operation. Patients' likes and dislikes can be met by contact with the dietitian on patient service.

The question often arises whether plate combinations should be offered on the menu. Such combinations are based on the inclusion of one expensive item and several inexpensive ones. Customers frequently do not understand why substitutions cannot be made, and conflict ensues. For this reason plate combinations were not offered at the Harper Hospital cafeteria until recently. The policy was changed in order to help the customers economize without sacrificing nutritional standards.

Provision must be made for late meals and between-meal snacks. This can be provided by having reservations made for a menu selected from the counter or by obtaining late breakfasts and light lunches in the tearoom. With the installation of the "pay service," late meals for the personnel has ceased to be a problem.

The pay cafeteria for personnel was instituted at Harper Hospital in April 1938. There was a marked reduction in the

amount of money spent for food, an improved service, and greater personnel satisfaction. The pay roll in the dietetics department has varied according to the increase in wages and labor turnover, as new employees start at a lower wage rate. Expenses of this department have increased, but this is due to a change in accounting which transferred many costs formerly listed under housekeeping and professional care of patients.

Percentage distribution of the dollar spent by the dietetics department is as follows:

	1937	1938	1939	1940
Food	72	59	53	54.8
Payroll	24	33	36	33.3
Other expenses	4	8	11	11.9
	—	—	—	—
Total	100	100	100	100

In the year 1937 the dietetics department expended 21 per cent of the hospital operating dollar without any contribution to the income dollar. In 1938, 22 per cent of the operating dollar was spent but 5 per cent was credited in the income dollar. In 1940, the expenditure was 19.7 per cent and the cash receipts were 6.7 per cent of the hospital income dollar. This must not be interpreted as profit, because the hospital operating dollar was increased by the addition of the food allowance to the payroll. The food cost report must show the distribution of the expenses in this department. The hospital accounting should show whether a decrease in food costs is offset by an increase in other expenditures.

The cafeteria type of pay service does not seem practical for the small institution, as its successful operation is dependent upon the volume of meals served and requires adequate variety of foods on the counters, which increases the cost of pro-

duction and service. When money is given the personnel instead of meals, a large number of these people eat away from the institution and there must be a source of replacement to pay the cost of operation. Since the hospital is concerned only with providing an eating place for the people within the institution, its only source of customers are guests of patients and physicians who are detained at the hospital. In a small hospital, this number is very limited and insufficient to replace the personnel who choose to eat elsewhere. A coffee shop, which would provide continuous service as needed, is a possible alternative.

The idea that impairment of health may result if the hospital does not provide three meals daily and sometimes additional nourishments, is a paternalistic attitude. A study of food eaten under the old system proved only too well that employees took some of all food offered, but ate only the foods they liked. Studies on waste confirm this fact. Food served does not mean food eaten and, even though an adequate diet was offered, many employees preferred to eat meat and desserts with the elimination of vegetables. The responsibility for good nutrition lies with the individual and can only be aided by education. During grade school and high school, the child begins to accept this responsibility in the selection of one meal a day at the school cafeteria. As soon as he enters industry or college, he accepts it in full. Interns and nurses are educated in nutrition and as guardians of the health of others are qualified to accept this consideration for their own welfare, and observations of the meals selected showed a consciousness of this. The variety in menus selected by the staff and personnel at any one meal is beyond the imagination and meal planning of any dietitian, and clearly illustrates why any planned menu receives so much criticism.

3. Educational Role of Hospital Dietitians Emphasized by Current Problems, *by Marion Floyd**

THE papers presented at this Dietetic Section of the American Hospital Association Convention illustrate the educational problems of the Nutrition Department. Whether we consider the personnel shortage, the rationing plan, or the constantly changing picture of the science of nutrition, we are impressed with our great opportunity for education.

Dietitians entered the hospital field as teachers of student nurses and that particular problem should be considered first. The *Curriculum Guide for Schools of Nursing* states: "The instructor should have a full appreciation of the place of nutrition in the nursing care of the patient and should cooperate with other instructors who are responsible for clinical teaching and bedside supervision, making herself acquainted with the content of the related courses and having conferences with the instructors and supervisors concerned with the courses."

The employment of a full-time teaching and supervising dietitian is recommended wherever possible. In smaller schools it is advised that adequate time be allowed for preparation and teaching. In that matter of adequate time lies the problem in the average hospital since the teaching duties are usually an extra responsibility in an already crowded schedule.

Definite effort should be made to free the dietitian to do a proper teaching job, to study recent texts and journals, to keep in touch with teaching material on the wards, and to understand the problems the nurses are meeting in their work and in their daily living. This practice of relating nutrition to the health of the individual student helps to make the subject live and vital.

If, in addition, the proper nutrition of the patient is stressed to both patient and nurse, whether by adequate house diet or special diet, both are benefited. With the impetus of present national interest in nutrition, many patients are desirous of improving their food habits. The nurse, in her more frequent contacts with the patient, can help greatly just as the dietitian can make the most of her contacts with both house and outpatients.

The responsibility of teaching the latter has long been that of the dietitian, in food clinic or by discharge diet. Additional interesting illustrative material is appearing constantly and the task is made more challenging by rationing, food shortages, and high prices of food. The dietitian must be a budget advisor also.

To many student dietitians it is a surprise to discover that the daily work of the dietitian is a continual teaching effort. The training of any employee is an educational problem: training in better work habits, the development of better working techniques by time and motion studies, and the reorganization of employees' schedules by job analyses. All these and the continual checking on routine duties of employees comprise a daily educational task. In addition to teaching techniques, employees may well be taught loyalty to the department and to the hospital.

This point is particularly important in training volunteer workers since all communities strive for interest in and good will toward their hospitals. Dietitians can well use this opportunity to educate the general public to a knowledge of the

* Adapted from *Hosp. Management* 56:100, 102, 104, Oct. 1943.

standards of the profession. Although it is somewhat difficult to use volunteers efficiently because of the variation in the hours they are available, it is a worthwhile experiment and a real necessity in many communities now stripped of regular workers.

The American Red Cross has developed with the American Dietetic Association a training course for volunteer dietitian's aides—women who have completed the Red Cross twenty-hour nutrition course and who volunteer for training and service in the hospital dietary departments. Just as the nursing department has come to appreciate the great service rendered by the nurse's aides so it is hoped that qualified dietitians will realize the potential value of the dietitian's aides and will not be "too busy" to enter into the training program of the corps.

Those hospitals that train student dietitians have an additional problem because regular classes and seminars are more difficult to fit into the hectic days of manpower shortages. Since most of the hospitals have shortened their courses to release graduates earlier to army and civilian hospital demands, the required number of classes must be given over a shortened period and repeated sooner to the next class.

Many medical lectures formerly given by doctors must be replaced by supervised class discussions. The administrative experience is particularly valuable at this time, since the students must enter into all activities, relieve employees very often, and carry responsibility not heretofore given them. It is important to instill into them ideals of order and cleanliness even though we may have to lower daily standards under stress of labor shortages.

The American Dietetic Association has from the beginning set high standards for

the training of student dietitians, future staff dietitians. The courses required in the four years of college give a broad scientific background for the practical work of planning special diets and understanding patients' cases. In the hospital, students are of course taught to follow the dietary prescriptions of the doctors for their patients.

It is a shock to student dietitians to discover how little the average house officer knows about diets and dietary principles. More than once, former students have written from other hospitals for advice when asked by doctors to figure a diabetic diet from the blood sugar analysis, knowing they should not take that responsibility but that the patient will suffer if they do not.

It would seem that adequate instruction of the medical students must be lacking. The May 1943 number of the *Journal of the Association of American Medical Colleges* contains an interesting article on the "Teaching of Nutrition in Schools of Medicine," by Dr. Russell M. Wilder. He states, "The apathy of most doctors regarding dietetics is astonishing"; and adds, "The simplest mathematical calculation seems to be beyond the grasp of most doctors. . . . It is a regrettable fact that what knowledge the average graduate or intern has about vitamins he acquires not from teachers of pharmacology or medicine but from the drug firms." Dr. Wilder specifically recommends that with their course in bio-chemistry be combined the practical teaching of nutrition in a dispensary clinic.

In the discussion of this paper, representatives of many medical schools took part. Dr. Frederick C. Stare, head of the Division of Nutrition of Harvard Medical School, emphasized that "nutrition should not become a specialty but should become a part of every doctor's thinking." He recommends that there should be a

close association with the dietetic activities of the hospital with which the medical school is affiliated.

Dr. Chauncey D. Leake, of the University of Texas, made this point also, saying: "One important piece of technique is cooperation with the dietitians, in order to give actual demonstrations of dietary samples of various diets that are appropriate for various conditions. . . . We mostly tend to remember what we see, and the actual demonstration of the meal that is proposed for a particular diet is an important aid, I believe, to people who take work in nutrition."

Surely dietitians everywhere would welcome the opportunity of planning their teaching program to include the medical students. What a joy to the dietitians if house officers were trained to understand and consider the nutrition requirements of all their patients. In addition to the satis-

faction of sharing the mutual problems of the nutrition of the patient, there would be real respect for the patient's meal hours as well as the importance of adequate normal nutrition and diet therapy.

Even the superintendent of the hospital needs the help of the dietitian to keep informed of the newer developments in her field. There is, therefore, hardly a contact that is not a real challenge to her—nurses, medical students, and house officers, with the patients for whom they all share a joint responsibility. Then, in her own department, the employees, the clientele of her dining rooms, and the student dietitians. Perhaps most of all, she must keep herself in touch with her field and see to it that she plays her part in the educational program of the government which is promoting the better health of its citizens and the proper use of the foodstuffs of the nation.

4. Adequate Teaching Program Helps Adjust Dietary Employees to Their Work, *by Gertrude I. Thomas**

It is indeed bewildering to an employee or subsidiary worker to find himself in a hospital atmosphere, among trained people, and to be expected to meet the obligations of the situation without adequate preparation.

The untrained, unskilled worker is not capable of performing his task, nor is he capable of recognizing the various levels of authority within the organization, or knowing the conventional relationship that exists between the employee and the patient, the employee and his associate, and the employee and his supervisor. He must be adjusted to his work and his new environment.

When the employee definitely knows what he is expected to do, and when this information is brought to him through a

well-developed teaching program, a proportionate feeling of assurance and self-respect and a good attitude toward the job are encouraged.

In this hospital the worker was given information covering the details of his work, his appearance, and his deportment. He was instructed in the use of cleaning agents; the care and operation of equipment; the preparation of the foods that are commonly used on the wards; the service of beverages; tray service; and the feeding of bed patients.

He was made aware of the best and most economical use of hospital time and supplies. Another objective of this type of

* Adapted from *Hosp. Management* 54:62, 64, Oct. 1942.

teaching was to standardize the group instruction and to reach toward a level of efficiency that would be valuable to the worker as an individual, and to prepare him for service that would accommodate the need of the hospital, and to turn out end products of acceptable and uniform quality.

Twelve hours were allocated to instruction, with attendance required for the subsidiary workers and optional for the regular hospital employees. To encourage the regular hospital personnel to come to the class, they were invited to enter into the teaching program. They presented topics, gave demonstrations, and had a place in the panel discussions.

It was consistent that, when the service of food on the wards or food for the ambulatory patient was under discussion, the diet kitchen maids attended, and when simple methods of cookery were presented the cooks attended. The roll for regular employees was not taken, but it was observed that many were faithful in attendance and expressed themselves as being grateful for the opportunity.

The course was sufficiently important to be repeated, with a nutrition intern giving the material under the supervision of a dietitian. The same lesson plan was used, depending upon the interpretation of a different instructor, to keep the material fresh and alive. It was made more em-

phatic through repetition and, with shifting groups in attendance, the information was extended to a large number throughout the year and contributed to their orientation.

These lesson plans were developed within the Nutrition Department, and the lectures may be offered in order or with a change of position, according to the inclination of the instructor. Hectographed material helped to hold the interest of the class, blackboards were used, a profile of the lecture was given out occasionally, and lists of cleaning agents and routine methods were distributed.

The classes were divided into four sections:

- I. Ethical standards
 1. Hospital ethics
 2. Personal appearance and personality
 3. Noise and breakage
- II. Introduction to equipment
 1. Equipment
 2. Upkeep of equipment
 3. Selection and care of utensils
- III. Preparation and service of food
 1. Care of food in cupboards and refrigerators
 2. Preparation of food, reheating food for deferred trays
 3. Aids to appetite
 4. Food service for the bed patient and table service
- IV. Cleaning and cleaning agents
 1. Conservation of time
 2. Cleaning agents and care of floors

5. The Factor of Food Habits, *by Margaret Mead**

THERE are several ways in which the relationship of food habits to problems of food and nutrition may be attacked. We may interpret the term "food habits" merely as the restatement in individual terms of the dietary pattern characteristic of a group in the population. In such case, to talk of the food habits of the southern

single-crop farmer is merely another way of stating that the dietary pattern of the region is rich or deficient in certain specified ways, or is characterized by certain forms of cooking such as cooking vegetables with fatback. We may also consider

* Adapted from *Ann. Am. Acad. Polit. & Social Sc.* 225:136-141, Jan. 1943.

the question in terms of the attitudes implicit in the dietary pattern, and particularly attitudes which become explicit with change of the dietary pattern, attitudes that are characteristic of different groups in our population or different regions of this country. We then shift our emphasis from the actual content of the food habits, whether these be expressed in terms of food values or specific food content or in terms of the whole complex of food selection, preparation, and consumption,¹ to the problem of existing attitudes toward food and the cultural expectation of ways in which changes in food habits occur.

CHARACTERISTIC ATTITUDES

When we so shift our emphasis, we shall be dealing with a series of attitudes characteristic of American culture, shared to lesser or greater extent with various European countries—we will not be using the term “food habits” as a cross-cultural scientific abstraction. We shall deal with the term “food habits” as a significant native concept, that food habits are aspects of individual behavior which are subject to change and which are characteristically selected out by parents, teachers, physicians, physical trainers, and others, to be commented upon in terms of change.² So while it is necessary, in order to inaugurate long-time nutritional changes in the diet, for instance, of Greene County, Georgia, to know the concrete details of the diet there, it is also necessary to know in what terms the inhabitants of Greene County view their diet, how changes may be phrased so that they will be accepted and welcomed, what phrasings should be avoided because they will awaken anxiety, mere temporary compliance, or actual resistance.

When nutritionists, thinking of the daily allowances, or economists, planning

for the maximum utilization of the available food supply, leave out of account the attitudes toward change in food habits, although they may be successful in altering the behavior of a specified number of individuals or in reconciling a given part of the country to the temporary disappearance of habitual elements from their diet, there is no assurance that the changes so introduced will lay the groundwork for a future greater responsiveness to nutritional science or contribute to wartime morale. By placing at the disposal of these specialists, not professionally occupied with psychological and anthropological problems, a systematic statement of attitudes toward change in food habits, each contribution in the nutritional and economic field may be implemented both in long-time educational terms and in short-time war and immediate postwar terms.

CHANGES IN APPROVED DIRECTIONS

With a few conspicuous exceptions in very isolated areas, isolated either geographically or socially, Americans recognize at least four possible forms of change in their current food habits.

1. *Morally dictated changes*, that is, changes in selection made among foods actually available to any given individual or family, such as “eating less meat and

¹ For a brief illustration of such a treatment of a dietary pattern, see National Research Council, Committee on Food Habits, *Italian Food Patterns and Their Relationship to Wartime Problems of Food and Nutrition*, by Genoeffa Nizzardini and Natalie Joffe, Washington, D.C., August 1942.

² Professor Kurt Lewin has developed a series of tests which may be applied to groups of school children to reveal the sanctions and surrogates which provide the anchorage of food habits in any given social group, giving a basis on which to plan concerted effort to change them. National Research Council, Committee on Food Habits, *A Group Test for Determining the Anchorage Points of Food Habits*, by Kurt Lewin, Washington, D.C., August 1942.

more vegetables," "drinking milk," or "drinking more milk." These changes are usually seen as movements toward (or away from) food that is "good for you" as contrasted with food that is "not good for you." Generation after generation, children are reared with the recognition that the customary diet contains foods, some more and others less approved, and they are exhorted to make the choice of foods which are "good for you" a matter of moral choice. At the same time there is implicit in the forms of persuasion and reward an expectation that most children as they grow older, especially male children as they become men, will insist on making willful choices in favor of foods which are not good for them.³ It is obvious that this attitude toward food habits includes the expectation that the customary diet will continue to include both approved and disapproved foods, from which each individual is required to make a correct choice.

2. *Socially desirable changes*, that is, changes in food habits as a result of altered socio-economic status.⁴ As people move up in the social scale, either within an urban environment, by becoming Americanized, by moving from country to city, or, in some cases, by migrating from one region to another, food habits are expected to alter in conformity with the demands of the new status. Such changes are not necessarily in any nutritionally valuable direction.⁵ They include the conviction of the European peasant that America is a country where you eat "meat every day," and the tremendous preference for "white bread" (a sign of status in Europe), which has been taken into account in the present national program for the enrichment of white bread. Such changes also include the greater willingness of Californians to eat dark breads, which can

be explained in terms of the higher social status of food faddism on the Pacific coast and the loss of first-generation immigrant attitudes.

3. *Scientifically sanctioned changes*, that is, those in which individuals or groups see themselves as taking advantage of nutritional science, improved processing, increased transportation facilities, and so forth, by altering the content or method of preparation of their diet. This attitude, while it is the most favorable one to the acceptance of sound nutritional knowledge, may also provide a background for various sorts of food faddisms masquerading under the heading of progress and scientific revelation.

These three types of change have in common the idea that the changes are in an approved direction—that the individual whose food selection is morally praiseworthy, socially distinguished, and scientifically oriented, will be a more admirable and healthy person than one who does not respond to these motivations.

FORCED CHANGES

4. There is another set of changes—those which are considered to be the result of *force majeure*, and which may be classified as:

³ These implications have been derived from the analysis of interviews with parents about food, from analysis of current advertising, and from a detailed analysis of the results obtained from the food anchorage tests of Professor Lewin, *op. cit.*

⁴ The most complete study of food habits viewed as indicators of social status has been made by Herbert Passin, John Bennett and Harvey Smith in a study in southern Illinois. Unpublished manuscript, University of Chicago.

⁵ Earl Koos in a study of attitudes toward food characteristics of low-income families of foreign origin in New York's Yorkville, found that "nutrition courses apparently fail to change either the social or the alimentation pattern of nutrition, although the former seems more susceptible to change than the latter."

a. *Changes dictated by physical circumstances.* They occur when the food which is desired or approved simply cannot be obtained because of geographical location, crop failure, failure in transportation, absence of storage facilities, climate, or other reasons. Such alterations in his food habits the individual accepts because he must, with the conscious expectation of returning to his original food habits as soon as circumstances permit. These changes may be seen either as negative, e.g., it is impossible to get fresh meat, or as positive, e.g., one just has to eat rice in the Orient. The changes which are seen as positive, that is, additions to the diet, probably will have more chance of survival in the diet after the conditions which made them obligatory no longer obtain.

b. *Changes dictated by a lowering of the economic status of the individual, the group, or the nation.* Such changes will be viewed almost without exception as deprivations, and do not provide an example of how permanent nutritional changes can be happily introduced.

c. *Changes dictated by alteration in the bodily state of the individual.* They may be pregnancy, increased age, illness, or obesity, in which food habits are modified under medical direction, either direct or inferred, in response to a threat or to fear of the physical effect resulting from failure to make the changes. The sanction behind such alterations is very strong, and those who wish to change the food habits of persons who are not ill are frequently tempted to use the bedside physician to back up their teaching.

5. In addition to these general attitudes toward changing food habits, it is also necessary to consider two recent historical events: (a) the treatment of the food situation in the last war, when the whole emphasis was upon temporary sacrifice and,

in the name of patriotism the civilian population was asked to forego various foods which it liked; and (b) the food situation during the depression, when a whole series of distortions was introduced by mass feeding, food orders, and the intermingling of governmental control, nutritional teaching, and a lowered sense of individual adequacy and self-esteem. Residues from both these experiences enter into the reactions of the American public today to combinations of nutritional education and wartime food measures.

EDUCATIONAL APPROACHES

Policies concerning food—rationing procedures, teaching about food, encouraging the use of substitute or alternative foods, alterations in processing, transportation, methods of preparation, and so forth—can be tested against these various deep-seated attitudes toward change and against the residues in current attitudes of experiences during the last twenty-five years.⁶ As an illustration, we may test out the various available phrasings as they may affect the impact of Army feeding on the future food habits of the nation. The diet in the Army may be phrased to the troops and to their relatives as: eating more of what you ought to eat, more of what is good for you; or a step up in the social scale—the Army gets better food than civilians, the men get as good food as the officers; or the results of the most modern scientific knowledge—the Army is scientifically fed to give maximum energy and health. These are all positive phrasings.

But the diet may also be phrased as: the Army has to eat the kind of food which can be most easily dehydrated, transported, and kept, regardless of its

⁶ G. Bateson and M. Mead, Principles of morale building, *Journal of Educational Sociology* 15: 206-220, Dec. 1941.

palatability; or we have to feed the Army, consequently there is less food for civilians, and civilian standards of living must be reduced; or doctors are looking after the Army, taking care of the boys for their mothers, and good food is part of a medical prescription—all negative phrasings.

If we then ask which of these phrasings will be most conducive to high morale during the war and least likely to leave a residue of negativism and unwillingness to perpetuate after the war food habits learned in the Army, we find that the third positive phrasing, i.e., that the diet in the Army is the result of the best available nutritional science, is the phrasing that endows the Army diet with the aura of progress and the possibility of further progress. This does not invoke social distinctions which, though potent, are incompatible with democracy, and does not suggest that the soldiers are being forced to be "good" when they eat Army food—a goodness which, in American thinking, naturally leads to a desire to celebrate by ceasing to be good as soon as possible. It does not invoke ideas of scarcity, ideas of lowered purchasing power, or the fear-inducing ideas connected with doctors, seen as physicians for the already ill rather than as public health officials. The addition of new and strange foods, necessitated by conditions of transportation or geographical location, may be given a positive value and thus perpetuated in postwar habits, provided such an addition is also seen as a positive contribution of science, not as a limitation placed upon the Army by circumstances.

The problem of how the undersupply of meat is to be interpreted to the American people may be analyzed in the same way. People may be told that too much meat is not good for them anyway and they ought to eat less, or that science is

providing them with the necessary alternative forms of protein and is enabling them to plan their diet to ensure their being able to deal competently with a lower supply of meat. It is virtually impossible to use the motivation of social status, and it is, perhaps, almost necessary to provide against it articulately, since to most people less meat means lowered social status. Alternatively the negative elements may be stressed and we may emphasize simple lack of meat, or simple need to eat substitutes if we are to live; or the doctor may be invoked in various ways, such as favoring the use of less meat, or providing prescriptions for somehow surviving a protein shortage.

Here, again, the invocation of science as a help in handling our available supply of meat seems to provide the best base. If we emphasize that we are meeting an actual condition as scientifically as possible, and use the temporary need to provide alternatives for meat as a way of teaching people what an alternative food means and thus what food values are, we can develop a habit of flexible adjustment—an expectation that food habits will change, and change in conformity with the best available scientific knowledge. The idea that we are using knowledge as a tool to keep ourselves strong and energetic and to provide enough protein for our allies, our soldiers, and the peoples of the postwar world is a definite aid to morale.

If wartime food policies concerned with the production, conservation, and consumption of food are actually analyzed in some such way as this, the wartime setting may be used to shortcut and accelerate the shift in the American diet from a traditional diet, uneven and often inadequate, sanctioned by usage and folk belief, to a diet responsive to changes in nutritional science. Food and nutrition are presented

to the public in a variety of forms—a headline, “Meatless Days Are Here Again”; a remark in a homemaking program, “Now about other forms of protein which you can use instead of meat”; an angry letter, “Are we to go back to the terrible days of the depression?”; or the admonition, “People eat too much meat anyway.” An integration of appeals is possible only if we recognize that in every such context Americans are forming attitudes about food in the war, food after the war, food as matter for dutiful behavior, aggressive bad behavior, or scientific sensible behavior, and food habits as rigid and alterable only under duress, or food habits as flexible and subject to responsible scientifically guided choice.

Serious pitfalls lie ahead of us if we invoke the war as a temporary situation, momentarily depriving, to be followed by a return to a halcyon world where everything will be the same as it was before the war. Such an attitude was probably partly responsible for the increased use of sugar after the deprivation during the last war. To the extent that the war is seen merely as a depriving interruption in normal life to which the individual must submit out of patriotism, all changes introduced during the war, no matter how nutritionally sound, how economical of human effort and conducive to human welfare, will be negatively toned. Where the war is accompanied by very real deprivations, as in the English diet, it is virtually impossible to escape at least part of such a negative phrasing. But in the United States, present indications are that many of the food changes which the war will bring will not be real deprivations, except temporarily insofar as they involve alterations in fixed habit systems.

If emphasis is placed upon the war as an opportunity to break away from un-

favorable past situations, such as a poorly balanced diet, or vegetables whose nutritional value was lost through slow transportation and inadequate storage, and if wartime conditions are seen as a rehearsal, with very limited stage properties, for a different way of life after the war, then this danger can be avoided, and nutritional improvements made in the wartime context can be carried over into the post-war world. But it is a danger which must be faced continuously and articulately. The association in the public mind between nutrition classes and first aid classes, while giving a temporary impetus to the interest in nutrition, carries a potential pay-off in a revulsion against nutrition as a measure associated with the war. This particular danger can be guarded against also by distinguishing between immediate wartime nutritional tasks, like emergency feeding, and ever present nutritional tasks specially necessary in wartime.

Another great pitfall lies ahead if we invoke the moral element in our attitude toward food habits, by asking people to be good, to eat what is good for them, and by backing up the request in authoritarian terms, rather than by asking them to be responsible and intelligent in the use of science to increase their ability to function in society.⁷ The docile, childlike acceptance of authority is a state of mind in which any change in governmental policy will be interpreted as a sign of weakness, and in which any exposure of that policy as unjustified will be resented. This danger

⁷ In a recent experiment in Iowa, it has been demonstrated how much more effectively food habits can be changed by the decision of the group than by admonition and exhortation presented in lecture form. National Research Council, Committee on Food Habits, *The Relative Effectiveness of a Lecture Method and a Method of Group Decision for Changing Food Habits*, by Kurt Lewin, Washington, D.C., August 1942.

confronts all programs where appeals to the cooperation of the public are necessary. It is particularly present in the matter of food because of the traditional pattern of rewarding children with love and sweets for eating what is good for them.

In addition to the need to use the war-time situation to develop a cultural pattern of intelligently flexible and responsible dietary change, there is also a need to build up a competent body of knowledge of the attitudes toward changing food habits held by members of other cultures for whose

feeding we may have to take the responsibility. The way in which we administer the programs of food distribution in occupied or ravaged areas may be one of the most potent and flexible tools for building world order.⁸ It can be done intelligently only if the administrators are equipped with systematic knowledge of the cultural contexts surrounding food in the countries where they are to administer relief.

⁸ L. K. Frank, *World order and cultural diversity*, *Free World* 3:83-86, June 1942.

6. Planning Physical Features of Food Service, by *Charles V. Wynne and James A. Hamilton**

EARLY in the development of construction plans of a new hospital, decision must be made as to the type of patients' food service. This decision is of major importance in the development of the basic over-all plans because it affects the number, size, and location of floor kitchens; the number, size, speed, type, and location of elevators; and to some degree the number and arrangement of patients' beds on the nursing units.

The major element of such planning is the method of distribution of the food after its preparation in the main kitchen until it arrives on an individual tray at the patient's bedside. The method is also concerned with the disposal of waste food and the washing of dishes. Basically there are two methods, dependent upon the place where the individual patient's tray is finally prepared: (a) decentralized, the patient's tray being prepared in the diet kitchen of each nursing unit; and (b) centralized, the tray being prepared in the main kitchen.

A more suitable basis for classification for this discussion, because it more closely affects the physical layout of the building,

is the means of transportation, i.e. (1) by bulk food truck (heated or unheated) corresponding to the decentralized method; (2) by food tray truck (heated or unheated) in the centralized method; and (3) by food tray conveyor, otherwise known as trayveyor, or subveyor in the centralized method.

Objectively, we desire to deliver the proper food to the patient, attractively prepared, and appealing to eat, as well as to give him the maximum of individualized service at the least cost. These result usually when the method affords plenty of competent supervision and the most direct and fastest means of transportation.

In forming our decision we should consider not only the costs and problems of initial construction but, what is more important, the factors of later hospital operation. We cite the paramount factors from these viewpoints, and we present in the attached table a summary of the salient features which you may desire to weigh in making the final choice for your given situation.

* Adapted from New England Hospital Assembly, *Convention by Mail*, pp. 5-10, Oct. 1945.

1. *Space Requirements*

The use of bulk food trucks requires the construction of the largest food service kitchen on each ward; thus, the cubic content is increased or the space which could otherwise be devoted to the patient area or other auxiliary patient service is decreased. On the other hand, the use of food tray trucks or conveyor to transport food reduces this area requirement by one-half.

The main kitchen area is increased with the use of bulk food trucks and food tray trucks because they must be stored there when not in use and during serving periods. This space is not required with the use of the conveyor. Both the tray truck and conveyor require in the main kitchen more storage for dishes, glassware, silver, and trays. Also, these centralized systems involve a large area in the main kitchen for centralized dish washing.

2. *Palatability*

Bulk food is more easily kept continuously hot in insulated heated trucks than in the other systems, yet it has a tendency to deteriorate from re-cooking. Moreover, re-handling which is necessary to prepare and serve the food in the ward diet kitchen tends to diminish its appeal through improper and unsuitable preparation of the tray.

3. *Serving Time*

The bulk food system is slower than other types, especially the conveyor which can make a complete trip in a 15-story building in about 46 seconds. In addition, the bulk food system requires about 45 minutes to serve a typical nursing floor. The food tray truck system requires about 25 minutes, and the use of the conveyor reduces this time to about 15 minutes. This reduction is possible because there

is no handling of food necessary in the ward diet kitchens, thus the serving time is greatly diminished.

4. *Initial Capital Cost*

In so far as the initial capital cost of trucks vs. the cost of installation of the conveyor is concerned, the trucks cost less. On the other hand, with the installation of the bulk food system it is necessary to construct large and more completely equipped ward diet kitchens; thus, the bulk system has a high initial cost. While the ward kitchens furnish a convenient place to prepare beverages and special meals needed by some patients at special times, rapid transportation and efficient communication systems allow the main kitchen to fill these special requests in the other systems.

With bulk food trucks, duplicate equipment such as refrigerators, coffee urns, tea and milk dispensers, toasters, and dish washing units are needed on each ward diet kitchen; thus, another element is added which further increases the initial capital cost.

5. *Labor Cost of Operation*

In the bulk food method there is a greater labor cost in serving the meal than in the conveyor method, due to the length of time required for the limited number of decentralized personnel to serve a floor. Although the price for unskilled personnel required in the bulk food system is lower than that for more skilled labor in the food tray truck system, the serving labor cost per meal is about the same, since the time in serving is somewhat shorter in the latter.

With these two truck methods there is an additional labor expense incurred because the trucks must be arranged and moved for pre-heating. The labor cost of

operation with the use of the conveyor is reduced considerably because there is less over-all personnel required, the speed of transportation is greater, and pre-heating time is eliminated.

6. *Dietitian Control*

There is a difficult problem of supervision in the bulk food method because there are many distributing points. If adequate supervision is to be maintained, a large number of dietitians would be necessary to be at these points at serving times. If this were impossible, those charged with the manufacture of food would have little control over its distribution. Supervision is important because the current trend in hospitals is to offer a selected menu to ward as well as private patients and to give more personal service to all patients.

With the use of food tray trucks and the conveyor system this control is much more efficient. Controlling proper amounts in servings, making trays more attractive, and close inspection of each makes possible a higher level of food service. Centralizing food service with the use of the conveyor makes distributing a part of the manufacturing process affording the highest level and gives the patient not only general personal attention but also highly individualized service.

With the use of bulk food service, the food is more easily contaminated in the ward kitchen. This danger would be reduced and minimized with the use of food tray trucks and the conveyor systems.

At the same time, breakage of dishes is greatly reduced with the use of centralized systems of distribution. Centralizing supervision brings greater control in the handling of dishes, glassware, silver, and trays. Likewise, this central control minimizes, if it does not prevent, pilfering and petty thievery.

7. *Efficient Dish Washing*

There is no facility for central dish washing in the bulk food method. Dishes must be washed on the ward kitchen thereby causing noise and confusion which is detrimental to the comfort of the patient. Central dish washing can be facilitated with the use of food tray trucks but the dishes must be reloaded on the trucks which delivered them. This operation is troublesome and occurring in patients' hall also acts to the discomfort of the patient. On the other hand, trays are returned by descending lift with the use of a conveyor system, thereby causing no confusion, noise, or other disturbance on the ward floor. Of much greater importance is the fact that more concentration of dish washing in one location leads to greater use of equipment, thus reduces labor cost, while more concentrated supervision leads to a higher quality of care in dish washing.

8. *Disturbance to Patients*

In the bulk food system the noise, odors, and smoke from food preparation in the floor kitchen at serving times may permeate patients' rooms, thereby causing discomfort and disturbance to the patients. These disturbing factors are reduced to a great extent, if not entirely eliminated, with the use of a centralized system in the ward diet kitchen. At the same time, the noise and confusion of dish washing are also eliminated.

9. *Economy by Centralization of Utilities*

Decentralization precludes the integration of utilities. While with the use of food tray trucks there is a considerable amount of centralization, the maximum concentration is possible under the conveyor system. The latter permits the articulation and integration of such utilities as steam, water, electricity, gas, location of flues, lighting,

1. COMPARISON OF TYPES OF PATIENTS' FOOD SERVICE

Decentralized Service

BULK FOOD TRUCKS

<i>Decisive Factors</i>	<i>Advantages</i>	<i>Disadvantages</i>
1. Space requirement		Largest ward diet kitchen necessary. Main kitchen area increased due to storage space for trucks.
2. Palatability		Food deteriorates from re-cooking. Rehandling diminishes appeal.
3. Serving time	Food more easily kept continuously hot.	System is slow. Requires about 45 minutes to serve typical floor.
4. Initial capital cost	Trucks cost less in comparison with installation of conveyor.	Additional cost in construction of diet kitchens plus duplicate equipment.
5. Labor cost of operation		Serving labor cost per meal higher due to longer use of less skilled personnel.
6. Dietitian control		Difficult problem of supervision due to decentralization. Hazard due to constant re-handling of food and lack of supervision.
7. Efficient dishwashing		Dishes must be washed on each ward diet kitchen. Unnecessary duplication.
8. Disturbance to patients		Noise, odors and smoke from ward diet kitchens permeate patients' rooms.
9. Economy by centralization of utilities		Precludes integration.
10. Flexibility of operation	Adaptable to disruption by professional staff of serving schedules.	Adaptable more to horizontally constructed buildings.
11. Mechanical efficiency	Bulk food trucks more mechanically efficient than conveyor system.	Duplicate maintenance required on equipment located on ward kitchens.
12. Educational facilities	Gives more in service training at decentralized ward diet kitchen.	Lacks strict dietitian's supervision at many ward diet kitchens.
13. Disposal of surplus food		Surplus food left in trucks must be returned to main kitchen.

II. COMPARISON OF TYPES OF PATIENTS' FOOD SERVICE

Centralized Service

FOOD TRAY TRUCKS		CONVEYOR	
<i>Advantages</i>	<i>Disadvantages</i>	<i>Advantages</i>	<i>Disadvantages</i>
Reduces ward diet kitchen space by half.	Storage space needed in main kitchen for dishes, silverware, glassware, and dishwashing.	Reduces ward diet space by one half.	Storage space needed in main kitchen for dishes, silverware, glassware, and dishwashing.
No duplicate handling of food, hence no deterioration.		Eliminates duplicate handling, hence prevents deterioration.	
Takes about half the time of bulk food service.		Reduces time to about a quarter that of bulk food service.	
Costs less in comparison with bulk methods. Cost of building floor kitchens decreased and installation of duplicate equipment eliminated.		Costs less in comparison with other methods. No food trucks necessary. No duplicate equipment necessary. Smaller floor diet kitchen.	
Reduces length of time of use of personnel.	Requires more skill. Personnel assist in preparing as well as serving.	Reduces use and time of personnel. Eliminates preheating truck time.	Requires high degree of skill of personnel trained in precision.
Introduces greater control. Makes service personal. Reduces hazard by centralizing serving.		Introduces greater control making service personal and individual. Minimizes hazard. Conveyor system permits best visual inspection.	
Provides central dishwashing. Concentration leads to greater use of equipment and higher quality.		Facilitates central dishwashing. Greater supervision leads to quality of care, greater use of equipment.	
Eliminates noise, odors, and smoke because trays are prepared centrally.		Eliminates disturbing factors of ward diet kitchens.	
Facilitates integration in main kitchen. Simplifies construction.		Articulates and integrates in main kitchen. Simplifies construction.	
Least easily adaptable. Professional staff disrupts service after trays are on way to patient.	Adaptable more to horizontally constructed buildings.	Adaptable to disruption since transportation is speedy.	Adaptable to vertically constructed buildings.
Fewer mechanical difficulties than with conveyor.			Breakdown in tray-conveyor causes major disruption of service.
Has greater teaching value by centralizing training.		Standardizes instruction at assembly points on conveyor line.	
Eliminates problem by concentration of bulk food in main kitchen.		Eliminates problem by concentration of bulk food in main kitchen.	

ventilation, and insulation, sanitary construction, floor and wall treatment, and thereby simplifies construction.

10. *Flexibility of Operation*

Disruption of serving schedules by the professional staff does not greatly interfere with the operation of the bulk food system. The preparer of the food and the server in the ward kitchen, i.e., the nurse, can adjust her procedure to harmonize with any emergency. The same would hold true with the use of food tray trucks, although this type becomes sharply inflexible when the serving schedule is disrupted after the food has been served on the trays. Since the short time in transportation is a favorable factor, the conveyor system is more adaptable than the food tray truck system.

11. *Mechanical Efficiency*

There are less mechanical difficulties with the use of food trucks than with the use of a highly mechanized conveyor system. On the other hand, maintenance service must be provided on equipment located in the ward diet kitchens. Break-downs in the conveyor system cause major disruptions of food service; hence, it makes this method more mechanically hazardous.

However, a second conveyor affords adequate insurance and it can be used for returning dirty dishes to a separated location near the main kitchen.

12. *Educational Facilities*

Decentralized service provides more inservice training to nurses, although the actual training the nurses will get in the ward kitchens will depend on the number of dietitians and their available time. Lack of dietitians to staff the many floor kitchens leads to lack of control which may make instruction on the ward unit undesirable. Centralization affords greater opportunity for training of a higher standard because such instruction can be given under close supervision and by the best dietitian available.

13. *Disposal of Surplus Food*

Under the bulk food truck system any surplus food cannot be as easily or effectively salvaged. This requires not only another handling to return it to the main kitchen but also the food cannot be salvaged until all trucks are returned. Centralization concentrates all bulk food in the main kitchen and thus eliminates this problem.

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CHAPTER XXVI. HOUSEKEEPING

I. An Administrator's Angle on Housekeeping, *by Nellie Gorgas**

IN this discussion of housekeeping from an administrative angle, it will help to orient us if the historical development of the department is described briefly so that we can see whence it came and the goal toward which it is heading.

Nursing itself was for centuries considered only as a household art, as Elizabeth W. Odell of Evanston Hospital, Evanston, Ill., pointed out in her discussion at the first Chicago Institute for Hospital Housekeepers in 1942, and for years the care of the sick was considered the task of the housewife, just as were cooking, sewing and cleaning.

In the early nineteenth century, Pastor Fliedner and his wife of Kaiserwerth, Germany, became much interested in helping women who had been discharged from prison become rehabilitated into society. They established a training center for deaconess nurses. As a beginning they took in six candidates and arranged a schedule of three services: first, cooking and housekeeping; second, laundry and linen; and third, the women's ward.

Students rotated through these services and received, in addition to their training, a certain amount of formal instruction in practical nursing and religious doctrine. Florence Nightingale studied at this school. One of her greatest fortes on the battlefield in the Crimea was her ability to organize housekeeping, laundry, linen service, and nursing care, thus bringing order out of chaos and putting the Army hospital into efficient running condition.

Miss Nightingale had learned the importance of these services at Kaiserwerth and she made sure when she organized

her famous school of nursing at St. Thomas's Hospital in London that her students learned the value of each. All housekeeping but the washing of windows, which charwomen, and sometimes convalescent patients, took care of, was done by student nurses for the next half century or so.

As late as 1914, students swept the floors of long wards in our hospitals during the noon hour and on Sundays. The students up to that time were, on the average, twenty-three to twenty-five years of age. Many had hired out as household workers before entering training. At that time there was little else besides teaching for young women to do if they had to earn a living.

According to Miss Odell, in her training course in 1912-1915, the student, day after day, dusted, cleaned and put beds and chairs in straight rows and was called sternly to account if one was ever out of line.

Would it not have been far more worth while for those students to have been filling ice caps for feverish typhoid and pneumonia patients every hour or two instead of every four hours, she asks, or to have been spending their time feeding their patients more leisurely and giving better bedside care? But the housekeeping had to be done and apparently for years it engrossed a large part of the nurses' training program.

This practice could not be continued indefinitely because it meant that the patient was being robbed of needed nursing care and that the student was being ex-

* Adapted from *Mod. Hosp.* 63:116, 118, Dec. 1944.

ploited to do the housekeeping for the institution.

After World War I, when more schools were in existence than were needed, student service provided cheap labor. Hospitals worked the girls long hours and paid them \$5 or \$10 a month. Good students would not go to such schools and nursing standards were deteriorating to such an extent that leaders in the profession realized that a change was imperative.

The National League of Nursing Education and other national nursing groups made studies and recommendations that resulted in the closing of many of the least satisfactory schools. Now the training program is quite different and the student's program is devoted entirely to matters pertaining to professional tasks.

So now we find that most hospitals have relieved the nursing department of the load of caring for the housekeeping of the institution and the student nurses' work has been taken over by paid maids and janitors and orderlies.

The work has been reorganized under the leadership of a specially qualified, well-trained, scientific department head who cooperates with the other department heads in the hospital, all working for the welfare of the patients.

This leader is the executive housekeeper who is found in most of the larger institutions today. She and the nursing department get along well together because the nurse realizes the nature and extent of the problems involved, but other department heads have now entered the picture and the scene has become complicated. Dietitians, engineers, ward helpers, volunteers, and many other groups, even board members, are all involved, so it is well to take stock at this time to see just where the matter does stand, administratively speaking.

The hospital administrator has something of a task on his hands to operate his hospital today because not only has it grown into quite a complicated organization, but many unforeseen difficulties have arisen to upset plans that have been developed painstakingly over the years to improve efficiency.

Administration means the organization and operation of a plan for the accomplishment of a purpose. It necessarily entails an objective. As far as housekeeping is concerned, the objective of the hospital administrator is to keep the hospital constantly in first-class condition, clean, healthful and safe, as economically as possible because only limited funds are available if the cost to patients is to be held within reason.

It entails, too, a plan of action. Housekeeping is a complex activity requiring constant attention to many different details. The plan for the housekeeping department must provide for the combination of personnel, materials and procedures in such a way as to accomplish the objective. It must be put into action and then constantly checked and changed as conditions vary.

From the administrative angle, the most important part of the plan is the selection of the proper person to help construct it and put it into operation. Since it must be a workable plan, the person who will be responsible for making it work is the one who should help make the plan and give advice as to details and changes. Therefore, the executive housekeeper is the most important factor as far as the administrator is concerned.

The housekeeper must be an organizer, a clear-thinking individual who knows how to meet problems, to cut through or work around obstacles. She must be able

to select the right workers, train them correctly, and keep them interested and co-operative. She must know her materials, how to obtain them, what substitutes can be used, what is the most economical answer to linen, decorating, and maintenance problems. Most important of all, perhaps, she must know how to work with others, including her superiors, her fellow department heads, and her own helpers.

This is quite a list of qualifications, but none can be omitted. Every successful executive housekeeper has to have them in considerable degree. Where she lacks the maximum degree, the administrator must help her for, in the final analysis, it is his responsibility to see that the department functions properly. He, therefore, concentrates first on finding the proper person for the job; then he gives her free rein after having worked out the general plan

with her, but he stands ready to lend a hand if their plan gets out of control.

Usually it is in the procedures, particularly those affecting interdepartmental relationships, that the most difficulty is encountered. But nothing is normal now and today's worst problem in most institutions is personnel.

It is still axiomatic, however, that where one side of the eternal organizational triangle of personnel, facilities, and procedures is shortened, the others may perhaps be lengthened so that the three together may still cover the same area.

In other words, if personnel dwindles, mechanical equipment and better arranged facilities may compensate, or more workable rules may have to be adopted in order to cut down intelligently the total work to be done so that no important part of the objective is too seriously impaired.

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CHAPTER XXVII. LAUNDRY MANAGEMENT AND LINEN CONTROL

I. Laundry Modernization, by J. R. Clemmons, M.D.*

AT Roosevelt Hospital (New York City) it became apparent that several departments of the institution required analysis—and application of corrective measures—to remedy deficiencies in their operation. It was painfully obvious that the laundry was not functioning in a manner to assure a supply of clean linen adequate to meet the needs of the hospital. The situation which confronted us was rather typical of that found in hospitals in which service has outgrown their facilities. If a brief recital of the remedial measures which were undertaken at Roosevelt points to general conclusions or to principles which may serve as a guide to others faced with similar problems, I shall feel well repaid.

At the outset we observed that although our inventory of linen appeared adequate to meet our requirements, and although the laundry staff was regularly working long hours, actually there was never enough clean, sterile linen to meet our demands. At this point we initiated a thorough survey of linen controls and methods of requisitioning clean linen. We also studied the laundry equipment capacity in relation to the demand and the operating procedures and the flow of work within the laundry.

This survey resulted in a decision to revise our controls as well as to replace some of the equipment and to rearrange all of it in accordance with a new layout designed to increase efficiency through elimination of unnecessary rehandling of the work.

We found, for example, that the laundry washman was compelled to work early and late with no regular quitting time, yet he never finished the washing in time for the finishing crews to complete their work at a reasonable hour. While this was partly due to lack of adequate washer capacity, it was also largely due to the fact that soiled linens were being returned to the laundry at any time, without regard to the obvious fact that washing must be completed early in the day in order to allow a margin of time for completion of the ironing, tumbling, presswork, and other finishing operations.

Accordingly, the nursing staff was instructed to get the bulk of the linen into the laundry not later than 11 A.M. This simple innovation was responsible for considerable improvement in the ability of the laundry to get the work out on time.

Another factor which held back production in the washers was the lack of means to accumulate loads of classified soiled linen of an economical weight for processing in the washers. The method of classification appeared to be correct as to its segregation of different types of soiled linen, but it made no provision for the assembly of washer loads of the proper size. As a result, washers were frequently run with insufficient loads, or were overloaded—either of which conditions caused delay in processing.

In the new laundry, means were provided to classify the soiled linen, not only

* Adapted from *Hospitals* 17:97-99, Jan. 1943.

as to type but as to quality. Sorting bins were installed of cubical content equal to the capacity of a washer pocket. In other words, a full bin is the correct load for a washer pocket and the element of chance in loading the machines is eliminated. Sufficient bins were constructed to permit complete classification.

These and other similar measures contributed to the greater efficiency noted in the new laundry. However, the selection of improved types of machines and their location in the laundry layout of course played a large part.

In the old laundry 28 full-time workers and five extra or part-time workers were employed, yet the laundry seldom completed its weekly work in less than 54 hours. The employees were dissatisfied and the rate of turnover was very high. Today 19 employees complete the work in less than 40 hours. Wages have been raised above Labor Department requirements. The turnover has been greatly reduced, notwithstanding the fact that problems of labor supply are today much more acute than they were when the old laundry was in operation.

Now we have an abundant supply of clean linen always available—even over week-ends and holidays when the laundry is closed. A roomful of stained linen which could not be used under former conditions has been reclaimed and again made serviceable and has been put back in circulation.

Some of the changes made in the laundry machinery are of interest. While the washers in use in the old laundry were of relatively recent manufacture, they were replaced in order that we might take full advantage of the newer semi-automatic, shell-less type.

These machines, of a radically new de-

sign, have, I am happy to say, produced beneficial results which have exceeded our expectations. They give us regularly 10 to 12 rounds per day, and are capable of even more if pushed to their production limit. The older conventional type washers processed a maximum of 6 loads per day. Our output per washer is therefore virtually doubled.

Our average running time per load is 25 minutes. Large bulk loads of moderately soiled linen are washed in 20 to 22 minutes. Whiteness and tensile strength tests are well within requirements. Worthwhile savings have been achieved in washing supplies, power and steam costs.

Three of the shell-less washers supplanted five of the old conventional machines. Now the bulk of the washing is done in the morning, and all the work leaves the washers and extractors and is in process on the finishing machines not later than 3 P.M., even on the heaviest days.

The extraction also was simplified as to handling and was greatly expedited by the installation of one large self-unloading extractor. This machine replaced three large extractors of the usual type. After extraction is completed, the extractor baskets are moved by chain hoist and monorail conveyor directly to the next operation. Flatwork is dumped from the extractor baskets onto the shakeout table, eliminating two extra rehandlings of the work at this point.

In all laundry activity we are concerned with the moving of things—taking them from one place and putting them in another. This applies to sorting, to bringing up the supplies for washing, to loading and unloading the machines, and especially to transporting the work from one operation to another within the laundry. A

reduction in the number of times the work must be handled leads to important direct savings in the time required for processing and in the number of employees required to do the job. A smooth flow of work with the expenditure of effort reduced to a minimum will decrease fatigue and give the laundry employees more interest and greater satisfaction in their work.

Considerable effort was expended in the development of a layout plan designed to fit the available space and to take full advantage of the possibilities inherent in a better arrangement of the machines. Many laundries which have been in service for a number of years and have been gradually expanded through the addition of one machine here and another there, have inevitably become unbalanced as to productive capacity of the machines and improperly arranged as to the flow of work. Emphasis was accordingly placed on eliminating rehandlings of the work and arranging the machines in such a way that the work moves steadily forward across the various operating units toward the clean linen storage. At no point is there any backtracking or retracing of steps.

The soiled linen enters on one side of the room, the classification or sorting taking place adjacent to the washers. The large and small extractors are across the aisle from the washers. The flatwork ironer, which handles 67 per cent of the finishing, is just beyond and adjacent to the extractors and is linked to the large extractor by the monorail conveyor. The delivery side of the flatwork ironer is located all the way across the room from the washer line and discharges the ironed linen within the clean linen room proper. It is folded on casted tables which are

then wheeled a few feet to the storage shelves.

This layout thus provides a straight flow for two-thirds of the linen from the washers, across the extractors, through the ironer, directly to clean linen storage.

The next largest classification of work is the rough dry, which at Roosevelt amounts to approximately 29 per cent of the total. The large tumbler which handles this classification is therefore located alongside the flatwork ironer. This arrangement provides virtually a straight flow of work from the extractors through the tumbler to clean linen storage. The tumbler is so located that it is unloaded near another entrance to the clean linen room. The tumbler is of the "dry-by-air" type that produces rough dried work which in reality is not "rough-dried" at all, but soft, fluffy and absorbent.

A short haul from the extractors to the presses is handled in truck tubs. The press shapes were selected on the basis of their adaptability to the garments to be pressed. Specially contoured pressing surfaces permit laying the work on the bucks easily and naturally so that it readily assumes the desired shapes without pulling and stretching. The judicious selection of press shapes has reduced the number of ironing boards required from 17 to 2. Thus the presses as well as the dumping type extractor are designed to prevent unnecessary tearing or straining of the work in handling.

The new arrangement and the revised procedures have together produced remarkable results in saving of labor and time. Washing is largely completed except for odd lots around noontime, extracting is finished soon after. The ironing is always finished by 5 P.M. The presswork is frequently completed by 2 or 3 P.M. The crew seldom works on Saturday.

An interesting policy relating to working hours has been established that has stimulated the laundry crew to work rapidly and efficiently. The help is paid by the day rather than by the hour. When the work is finished the crew can go home.

The laundry manager must pass upon the quality of the work and he watches it carefully to make sure that none of the operations is slighted. Subject to this control, the crew may leave as soon as the work is finished. This basis has proved to be an exceptional builder of morale among the help. The more rapid workers are continually prodding the slower ones, encouraging them to keep up with the procession so that all may leave earlier in the day. It is never necessary for the laundry manager to speed up the work. The help takes care of that angle.

Thus far we have discussed only quality of work and production. Results have been equally satisfactory in reduction of operating cost. A worth-while saving has accrued in total annual cost of operating the laundry.

The new equipment and the improved layout and operating procedure permit the laundry manager to give careful attention to completion of formulas according to schedule. Compared with haphazard operation of the washers, this pays big dividends, from the standpoint of both operating expense and the maintenance of an adequate stock of sterile linen.

A direct comparison of the several items of operating cost in the new laundry and the old reveals a most gratifying reduction in operating expense.

Labor cost under the old set-up amounted on an annual basis to \$19,030. In the new laundry labor amounted to \$19,190 or an increase of \$160. Note that the crew was reduced from 28 regular and five part-

time to 19 full-time employees. The raising of wage rates, however, makes the annual labor costs somewhat higher than before. Now, however, the turnover in employees has been reduced and the employment situation has become stabilized.

Savings in washing supplies amounted to \$625, steam for equipment \$825, and electricity \$470. Savings in the cost of hot water amounted to \$6,935, a large item. This saving is traceable to the ability of the shell-less washer to process the linen with a greatly reduced amount of hot water.

Cost of linen replacement for the last year of operation with the old equipment amounted to \$10,515; after the modernization this item amounted to \$9,020. Actually the improved processing after the change effected a much larger saving in linen cost. Prior to the opening of the new laundry and moving to the new building linen replacement was kept as low as possible and a large purchase was made after moving. We will let the figures stand as they appear on our records. However, if this figure were adjusted to compensate for the unusually large purchase immediately after opening the new laundry, it appears that the linen replacement cost has now been reduced to approximately 2 cents per patient day.

The sum of all these items represents the total annual laundry cost before and after the reorganization. The annual operating cost of the old laundry was \$48,200, of the new laundry \$29,500 or a saving in one year of \$18,700 or approximately 38.8 per cent.

At this rate of saving our investment in new equipment will pay out in a comparatively short period and will leave us a considerable margin of saving in the years to come.

2. Efficient Operation for the Duration*

THE laundry represents an important part of our civilian life. Upon laundry management falls the responsibility of guaranteeing continuous, uninterrupted operation during the national emergency.

Heretofore, management has been concerned with the economical production of its various departments, even though some of its high production figures have been reached at the cost of prematurely worn-out machinery. Today, replacement machinery and, in some cases, simple repair parts, are difficult to obtain, or not available at any price. The question before us is what can management do to keep operating through this crisis with the machinery now available. Good maintenance is only accomplished through an organization managed by those who have a complete mechanical knowledge of the machines for which they are responsible. Coupled with this, there must be a systematic, tireless routine of lubrication, adjustment and replacement of worn or broken parts to give perfect machine performance.

The efforts of the finest maintenance can be nullified by faulty operation. Take, for example, the laundry washroom. The machines in your plant may have the very best attention in lubrication and general machine adjustment and repair; yet abuse of the machines through overloading may cause frequent machine breakdowns and premature failure. Like any other piece of machinery, laundry washers are designed for a definite maximum load.

Motors, gearing, strength of the cylinder sheets and general machine make-up are arrived at by engineers who design laundry washers for the predetermined loads they are to carry. Many laundrymen throw all of these engineering principles to the winds and sanction huge overloads for washers, simply because there is space

enough in which to put these overloads. The result of such operation is an added strain on all of the washers' driving parts, causing failures of bearings, gears and motors, distortion of cylinder doors and sheets and, in some cases, actual cracking and breaking of the cylinders themselves.

Correct washing and distribution of supplies and correct rinsing cannot be accomplished in overloaded cylinders. Although the washers themselves suffer through the abuse of overloading, the evil does not end there. It extends on through the plant to whatever other machines the work must go.

Overloading is only one of the abuses to which washers can be subjected. Slamming of cylinder and shell doors brings about structural weaknesses in the doors, sills and latch parts, resulting in torn work. Jogging the inch buttons up and down through numerous short, jerky movements each time the cylinder doors are spotted, also causes unnecessary strains on the motor and the entire drive mechanism.

If any of these abuses exist in your laundry, steps should be taken at once to stop them. This will insure longer mechanical life for your machines.

Now let us diagnose the trouble that results from incorrect extractor operation. Here again we will assume that the machines have the finest of maintenance attention and that the basket and motor have been checked periodically to make sure they are running at the rated speed.

Incorrect extractor operation may be classified under two headings: improperly balanced loads and insufficient extracting time.

Laundry extractors are designed to handle loads that are not perfectly in balance. The resulting vibration is absorbed by rubbers or suspension cable assemblies

* Adapted from *Laundryman's Guide* 69:32-33, 88-91, Jan. 1943.

built into the machine for this purpose. There is a definite limit, however, to the amount of vibration these parts are capable of absorbing. To exceed this limit and permit the extractor to run with an excessive amount of vibration means that the machine is running in a dangerous condition. Failure of bearings, spindles, baskets, and other parts of the machine can often be traced to the continued operation of poorly balanced loads.

When careless loading of extractors is practiced, frequent stops for rebalancing are necessary. This means that severe loads are imposed on the motors. Extractor motors are designed for a maximum number of starts per hour. To go beyond this number of starts means increased motor temperature and eventual motor failures. When motors fail on such high-starting current machines, they fail with little warning. This is the place where the common sense of operator and supervisor must be brought to bear, and laundry management should insist on careful loading at all times to avoid the penalty of machine failure.

Laundry managers should insist on the use of such mechanical timing devices as are provided, or that extractor operators keep accurate time records of every load. The length of time that various types of loads should be run can best be determined by actual extraction tests made by the foreman or manager in the plant. Work leaving the extractors should at no time have a retained moisture content of over 50 per cent of dry weight of the load. Maximum efficiency is dependent upon this factor.

Although insufficient extraction may not be detrimental to the machine itself, it creates a condition in the work which results in trouble throughout the plant. It means that work being sent to the flatwork ironer, tumblers, and presses contains a greater amount of moisture than these machines

are designed to handle efficiently. Many laundry managers, or washroom foremen, think it good practice to cut down extracting time to suit washroom conditions or general conditions throughout the plant. They pride themselves in being able to get work through by this method when volume is exceptionally heavy. But they fail to realize the actual result.

The first indication of under-extracting work going through a flatwork ironer is either the rolling of work in the machine or the delivery of damp work at the receiving end. To compensate for this, additional pressure is jammed on the ironer rolls. Thus, the ironer is transformed into a combination extractor and ironer. When excessive pressure is used, cover pulling and padding failure are encountered. The additional moisture, instead of being evaporated by the ironer itself, is passed on to the aprons, causing apron wrinkles in some cases. Replacement of the apron then becomes necessary.

When work is being received damp on the receiving end of the ironer, you will sometimes find that the operator is slowing the machine down to the next speed. This definitely causes a drop in production.

When excessive pressure is placed on flatwork ironer rolls, the roll boxes and roll shafts become worn and an increased load is placed on the entire gear train which drives the ironer. Mechanical failures of machine parts result from such practice. Thus, under the pretext of saving, which would be only a small amount of time in the extraction department, a great amount of waste results.

The flatwork ironer represents a large investment and is a very important piece of laundry machinery. Its correct operation is dependent upon its being given prescribed operating conditions. Let us assume that the flatwork ironer in your plant has the ul-

timate insofar as steam, return and maintenance is possible. From this point on, responsibility for operation of the ironer rests with the laundry management. Heretofore, excessive replacement of aprons, padding, ribbons, etc., may not have been such an important item, but the day may not be so far distant when replacement of this material may become as difficult as the replacement of certain repair parts for the machine is today.

Plant owners should avail themselves of every opportunity to educate themselves and their organizations in obtaining the maximum their flatwork ironer is capable of producing, also the greatest length of life from each piece of padding, cover cloth or apron cloth that is applied. This can be done only through a thorough knowledge of what to expect from a flatwork ironer. A foreman, manager or some other responsible person should be delegated to start up the flatwork ironer each morning. He should be certain that the ironer has a thirty-minute pre-heating period with a partially open main valve, and that the machine is completely filled with one hundred pounds of steam pressure before being put into operation. He himself should apply the pressure to a correct operating point. He should be thoroughly familiar also with the automatic control of the aprons and, when starting up the ironer each morning, should double check as to the operation of apron controls.

The aprons of an ironer should be kept so tight that all controlled rolls are functioning and no rolling of work will take place in the inside apron where the work is conveyed over the bottom of the chest. The control of aprons in some cases presents quite a problem to the institutional laundry operator. We find that the greatest trouble in controlling aprons arises from the fact that the person responsible for the opera-

tion is attempting to control the aprons from the spiral rolls at the rear of the machine. Instead, control of the aprons should be handled from the control rolls which are mounted underneath the chests of the ironer. If the person responsible is not fully familiar with guidance of the aprons from the control rolls, steps should be taken to be sure he understands it thoroughly. This is important, because guidance of aprons from a spiral roll only has a tendency to stretch them and to cause wrinkles to develop in the center or side of the apron. Proper use of the control rolls will avoid this.

When the time comes for applying new padding or top covers to the ironer, the material should be properly applied. The correct procedure is to start at the very front of the machine and to be sure that No. 12 duck is securely glued to the ribbon-fed drive roll. This will assure correct speed of the ribbon-feed, so that it will not slip when work is sent into the roll.

When the rolls are padded, they should be graduated slightly so that there is an even pull of work through each succeeding roll. The padding should also be applied to take full advantage of the entire length of the padded rolls.

When production has been finished for the day, it is good practice not to stop the ironer immediately. The ironer should be run for at least fifteen or twenty minutes on light pressure, at slow speed. This will help remove the moisture which has built up in the roll over the entire day's operation. Then, the night cloth or apron should be run through the machine between the padded rolls and chests, also between the inside apron and bottoms of the chests. This will protect covers, padding and inside apron from direct heat while the machine is idle. This type of operation, combined with the cooperation of the washroom in

correctly conditioning the work for the flatwork ironer, will result in extended, efficient life of padding and aprons and will assure maximum machine production.

The padded rolls of flatwork ironers should be kept within certain limitations as to diameter. On chest-type machines, the padded rolls should never be allowed to get below $12\frac{1}{8}$ inches and never above $12\frac{3}{8}$ inches in diameter. The chests are machined for a $12\frac{3}{16}$ inch contour. It is evident, therefore, that rolls larger than $12\frac{3}{8}$ inches will not fit into the chests correctly. Likewise, when rolls are smaller than $12\frac{1}{8}$ inches in diameter, valuable ironing surface will be lost. Diameters can be kept within correct limitations by the use of padding size and lengths specified by the machine manufacturer, and by changing and applying all the padding as a complete unit when the rolls get below efficient minimum size.

Correct adjustment of the roll-pressure screws and pressure device is important in maintaining efficient roll sizes. This adjustment can best be made by a qualified engineer from the machinery manufacturer and should not be tampered with once it has been correctly made.

Be sure also that a wax cloth is run through the ironer at least three or four times during the day, and that a kerosene cloth is passed through it at least two or three times during the week. It is necessary to use wax and kerosene cloths in order to treat the top and bottom surfaces of the chests alike. Some plants wax only the top sides of the chest. It is just as essential to clean the bottoms of the chests as it is the tops. Otherwise, an accumulation of residue builds up on the bottoms of the chests. This will cause rolling or snubbing of work, which retards production.

Plants that use sizing must keep the No. 1 chest at the feed board clean at all times. If not, there will be an excess of rolling at

this point from the build-up of sizing and verdigris. The lips of all chests should be cleaned periodically to remove such accumulation.

We have had customers report that it was impossible to iron on the entire width of their flatwork ironer due to an accumulation of oil on the ends of the padded rolls. This will not happen if the shanks of the rolls are kept free of oil, by making sure that the oil cups are feeding only the required amount of oil to the bearing boxes. The shanks accumulate this excess oil because of over-oiling or because the nipple which holds the oil cup is cracked.

Cleaning the shanks of the padded rolls is a very important maintenance duty, since production will suffer if you are unable to use the entire width of the machine. Another result will be that the ends of the rolls will remain large in diameter, while the centers will pack down to a smaller diameter. Cone-shaped rolls will result in rough-drying and uneven passage of work, because ironing pressure will be confined to the outside ends where the roll diameters are larger. The centers of the rolls, being of smaller diameter, will do little or no work. It is good practice, therefore, to alternate the work going through the ironer by feeding one lot of large work completely to the right side and the next lot completely to the left. In that way, the rolls will be kept evenly packed at all times, cover and padding distortion will be avoided, ironing quality will be better and production improved.

We have attempted to analyze some of the undesirable operational habits that have developed in laundry practice on the larger pieces of equipment. Similar conditions may exist with regard to any other equipment in the laundry. There are certain sensible, efficient methods of operating any

laundry machine, and it is only with the full knowledge of and complete adherence to these methods that real production can be obtained.

The constructive criticism offered here is the direct result of field contact which we

in the engineering end of the business have encountered from day to day in response to customers' requests for assistance in solving machine production problems. It is hoped that some portion will prove beneficial.

3. Maintenance of Equipment*

MAKE your equipment last. That's the advice of the government as well as of maintenance-wise members of this industry.

Maintenance is a matter of alertness, carried through by regular and frequent inspection. In other words, don't wait until a breakdown occurs. Inspect regularly and in most instances the threatened break will be found before it occurs.

Lubrication and parts replacement provide the magic formula for enduring efficiency of equipment. Parts replacement will be avoided to a great extent by conscientious lubrication.

Upkeep of building and premises will contribute equally to the safety and efficiency of employees, as well as to the life of the property.

Effectiveness of the lubricant is the first consideration. High temperatures and excessive water conditions demand a lubricant that will hold up.

Oil for ironers must be able to take heat. Constant high temperature will cause inferior oil to break down and thicken up, leaving a carbonaceous settlement, which tends to obstruct the flow of oil to the bearings of the machine.

If an inferior lubricant is used in the washroom, there is always the possibility of water working into the bearings and washing the oil away. The manufacturers of this equipment have devoted their engineering ability to providing protection against this occurrence, by making the bearings as water-tight as possible. However, the owner

of the equipment is called upon to continue that protection with proper lubrication. Heat and water have great penetrating powers; the correct lubricant, one that will not break down under heat and will effectively seal the bearing clearances against water, is the final safeguard.

Manufacturers issue recommendations for the care of machinery. Those recommendations should be recovered from their quiet resting places, studied, and followed religiously. Where directions ask for weekly application of grease by pressure gun, that procedure should be followed—not every other week. Points which require oil every four weeks should be lubricated with just that regularity.

One consulting engineer, visiting various plants throughout the country, stated not so long ago that 50 per cent of the plants do not take the trouble to wipe the soap from the wash wheels once a day. He said he shuddered to think of seeing a cross-section picture of working parts of equipment now in operation in many plants. On questioning, he discovered that inspection and upkeep were carried on only on infrequent days of let-up in production.

Today, when large volumes of work are pushed through the plant, the flatwork ironer takes on an important role. Plant owners have complained that trouble often develops from that line. Rough-dry is one

* Adapted from *Laundryman's Guide* 67:32, 68, 70, Feb. 1942.

of the bugbears. This may be due to poor extraction. An extractor transmission belt may be slipping, giving only one-third or one-fourth of the actual extraction required. The ironer rolls should not be used to extract. Excess pressure, used to make up for poor extraction, wears the padding unevenly and soaks out its springiness. It does not improve the ironing quality. If padding is old and scorched, it does not absorb normal moisture, and also results in rough-dry.

Excessive moisture, penetrating the padding, causes rusting of the roll. Condensed vapor on the roll also causes rusting. If this rust penetrates to the surface, as it often does, the linens are in danger of staining. The old padding should be removed and the iron rolls scraped with a wire brush, then painted with an aluminum lacquer—if you can obtain an aluminum base product. An oil base paint should not be used. The rolls should be re-padded and re-covered with new materials.

Rust also is formed by leaks in the chests or cylinder ironing surface, through which moisture seeps out. Such holes should be plugged. An idle ironer, permitted to become colder than room temperature, gathers moisture from the air, which condenses on the cold surfaces and results in rust.

Emery cloth, sandpaper or steel wool may be used to remove rust spots on the ironing surface, and the spots rubbed with a kerosene cloth. The ironing surface should be waxed generously before work is passed through the ironer.

Most minor causes of sticking to padded rolls can be corrected by waxing the ironing surface. Oversouring, too few rinses and static also cause sticking. The washman should be checked to make sure that he does not leave an evident residue of alkali in the goods, which will gum up on the ironer and eventually cause sticking. Proper

grounding of the ironer will remove the static.

Trouble often is encountered from wrinkling and buckling on the first roll nearest the feed ribbons, on a chest-type ironer. Frequently this is due to an accumulation of wax, lint, starch, sour and soap that has stuck to the surface. When the ironer is cool, application of a kerosene cloth can be made to this first chest. This will soften the accumulation. Then fasten a large sheet of emery paper to a cloth "lead," and polish the chest with the emery paper. The ironer should be waxed thoroughly before it is used.

To keep chest-type ironers clean of dirt, and ironing surfaces smooth, a large muslin cloth about the size of an ordinary sheet should be soaked in kerosene to half its depth and then wrung out by hand. This leaves half the cloth dry. The cloth is then run through the ironer, wet end first, twice a week.

A cloth saturated with paraffin next should be run through the ironer to wax the chests. To prepare this cloth, cut off enough small flakes from a cake of solidified paraffin to cover a strip across the cloth a foot and a half wide and a foot and a half from the edge of the cloth. The cloth should be sufficiently wide for the strip to extend the full width of the machine. Fold the end of the cloth over this strip and feed the folded end through the machine. The cloth can be used over and over again, until the paraffin is exhausted.

Discolorations, rough dry, and slow operation in presswork are attributed to the following: dirty equipment, improper steam pressures, excess moisture, presence of alkalis, unremoved soap, unremoved bleaches. These faulty conditions have to be corrected at their points of origin.

Dirty washers are the cause of many ills in presswork, lint, and untrue action of

formulas. Here's the procedure suggested for removing built-up accumulation in the washer:

1. Clear the washer.
2. Shut the doors and run in hot water until one inch high in cylinder.
3. Start up the washer.
4. Add about two pounds of detergent on each end of the wheel.
5. Open steam line to heat water to 160° F. or over.
6. Run for ten minutes.
7. Empty.
8. Repeat the foregoing procedure. If all soil and grease are not removed, use a broom, pressing it firmly against the revolving cylinder.
9. Two rinses, five minutes each, of ten- to twelve-inch water level.

10. Add one pound of oxalic acid in a one-inch water level.
11. Turn on hot water and steam.
12. Empty.
13. Two five-minute rinses, ten- to twelve-inch level.

Many dry cleaners experience trouble in lint and dust on garments. This is often due to static that has built up in the machine. Since the static charges in garments are generated by the rubbing together of the fabrics themselves, it is necessary to ground the cylinder of the washer as well as the shell. This precaution will avoid a great deal of nuisance at a time when do-overs and unsatisfactory work hold up volume.

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CHAPTER XXVIII. PERSONNEL MANAGEMENT

I. The Human Element in Personnel Management, by *Lawrence A. Appley**

IT was not so many years ago that personnel administration and activities were separate, specialized, formalized responsibilities delegated to particular departments and staff specialists. There was a distinct attitude on the part of management that they employed experts to take care of the people in the organization and to be responsible for the human factor involved. Management's job was to run the business. The personnel department's job was to supervise and guide the human forces involved. In my opinion, however, the present era will establish a new status for personnel administration. It will make personnel administration—responsibility for the human factor—and management responsibility one and the same. Proper dealing with the human factor in an organization is management's task, is management's most important responsibility, and cannot be delegated to staff members or departments.

It is probable that many administrators have experienced attempts to "sell" management on a personnel program, and the budgets, expenditures, and appropriations required to make that program effective. Rather than trying to "sell" management, it would seem that there is a simpler, a more reasonable, and a more logical approach. If efforts were directed toward trying to influence management on sound management practices and administrative processes, appreciation by management of the place of personnel programs in that picture would be a conclusion rather than a subject for intensive consideration. If enough interest in the question of manage-

ment can be created on the part of executives and administrators so that they will promote discussion of the basic management processes within their own organizations, the human element is bound to take its proper place. Rather than discussing personnel and training as such, discuss management, and it soon becomes obvious that management is personnel and training.

You are probably confused at this moment as to how that can be done. Here is a tangible illustration. Visualize, if you will, the top executive group of your particular bureau or agency sitting around the conference table for the purpose of analyzing the procedures of management. From my experience, such a discussion, if followed to a conclusion, will develop an analysis similar to that which follows. The form may not be the same, the words may not be the same, the arrangement may be quite different, but the conclusions will be similar.

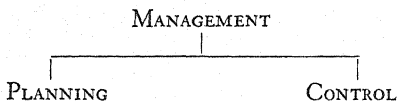
MANAGEMENT

Management is the responsibility for accomplishing results through the efforts of other people. Further investigation discloses that there are many synonyms for the word, such as administration, supervision, foremanship, leadership. They all mean one and the same, varying only in degree of responsibility. Management refers to any individual having responsibility

* Adapted from *Hospitals* 16:13-20, May 1942.

The paper was originally published in pamphlet form by the Society for Personnel Administration (Washington, D.C., 1941).

for the activities of others, whether he be the chief executive of the organization with 10,000 people under his direction or the straw boss with three or four people under his direction. Now let us break the term "management" into its basic parts:



Management divides itself into at least two basic functions: planning and control. There you have administrative responsibility in its simplest form. From this simple breakdown you can produce the executive function in one statement:

"The function of an executive or supervisor is to determine specifically what he desires to have his organization accomplish; to measure accurately how well it is being accomplished; and to develop and provide adequate methods for bringing present organization performance up to the level required for complete accomplishment of objectives."

In other words, management has to plan, and then set up controls to see that the organization functions in accordance with the plan.

As long as human beings have weaknesses, and that will probably be long after you and I are gone, human performance will never reach properly established objectives. That is why we have leadership; that is why we have managers and supervisors. Their job is to get people to do more nearly what they ought to do. The value of a leader is interpreted in terms of his capacity to accomplish just that.

The Development of People

If you agree with the analysis to this point, and if any group comes to the conclusions offered thus far, the next observation is a most important one. It is an ob-

servation that executives throughout this country are making today. It is a definite contribution to the advancement of the science of management and to the progress of human relations in business and government. It has come to me from the mouths of many influential men in administrative circles. Put this statement to the test; tear it apart; look at it through every microscope of practical reality that you have at your command. Here it is: *Management is not the direction of things, it is the development of people.* The administrator's job is not to make things or to direct things; it is to select and develop people who can. It is to create an organization of human beings that can accomplish those activities for which the administrator is held responsible.

This is not an idle dream; neither is it a fleecy, intangible ideal taken from the glorious sphere of unreality. It is a practical, hard-hitting, inevitable conclusion that anyone will reach who is willing to take the time to analyze exhaustively and conclusively the responsibility of management.

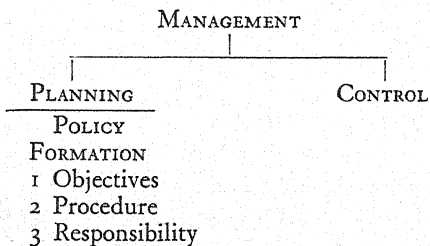
The day has gone which encouraged the type of executive practice which used to say: "I have a job to do. I'll get a man who can do it. If he doesn't do it, I'll fire him and get somebody else." We are beginning to realize that organization, administration, public and private enterprises are just agencies of human development. They are just channels through which individuals exchange their creative abilities for the services of others. Management has its functions to perform in the progress of civilization just as has the church, the school, or any other agency of society. Therefore, executives and supervisors are taking people as they are, imperfect as they may be, with whatever background, experience, and training they may possess, and are changing their attitudes, improv-

ing their skill, increasing their knowledge, and altering their habits, and thereby making them better workers and better citizens.

Such an observation challenges the very best in us. Before we accept it we should put it to the test. Take any activity in the public service which now comes to your mind and try to prove that that activity can be handled satisfactorily without developing somebody to handle it and without involving the attitudes and skill of human beings in the public service. Take an activity which is as cold, as cut and dried, as statistical and impersonal as a departmental budget. Try to properly prepare, submit, secure approval of, and administer any budget, large or small, without dealing with the human factor. It cannot be done. Therefore, I reiterate the conclusion given in my earlier comments—that in approaching the subject of personnel administration by first considering the basic processes of management, you will arrive at the ultimate conclusion that management and personnel administration are identical.

RELATIONSHIP OF PLANNING

Let us follow this analysis of management a little further. Consider if you will that basic factor of management dealing with planning:



The dictionary tells us that planning is policy formation, and if we look under policy we will discover that it is a plan of

action. In other words, planning is the formation phase of administration or management. It is the first part of the executive function. Its importance cannot be overestimated. It would seem that before human beings can be coordinated in the accomplishment of a common objective, plans must be created and stated in a form that the organization can understand and follow. A policy must be clearly stated and written in order to accomplish its purpose in the administrative processes.

The best illustration that has come to my attention was submitted by someone in a conference of business leaders. I cannot even tell you who it was, but it seems good. You might have in your mind a house that you want to build and you know exactly what that house looks like as well as the interior arrangement of it. You know every brick and piece of mortar. You know every closet, nook, and cranny. In your entire lifetime you will never get a house that looks like the one in your mind until you have three fundamental tools: First, an architect's drawing of the finished house; second, a blue-print indicating the procedure by which the house can be built; and third, an indication on that blue-print as to what the carpenter is to do, the electrician, the mason, the plumber, the roofer.

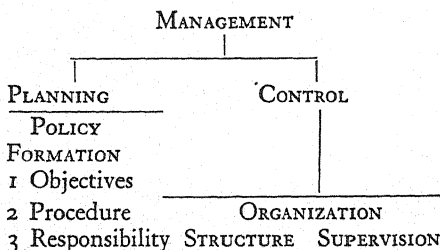
What is the difference between building a house and building a public service which your particular bureau or agency represents? It would seem reasonable to conclude that if it applies in the case of the house, it is equally true that you will never secure the result you want in any organized effort unless you have a policy which indicates in writing the objectives to be accomplished; unless you have developed a basic procedure which will accomplish those objectives; and unless you have definitely assigned the steps of

that procedure to individuals and departments in your organization.

Do you see any loopholes in that? Only you can answer in your own mind how sound and how complete the policy formation or planning phase is handled in the organization of which you are a part. This is a basic consideration in sound administration. We shall later explore its relationship to the human element.

MEANS OF CONTROL

Let us now turn our attention to the other basic part of management or administration which we have identified as control. What media of control does an administrator have to see that people function as he would like to have them function?



Organization Structure

There seem to be at least two media of control. These are by no means all but they are basic. The first one in this sequence of thought is *organization structure*. This is a term which, like "policy formation," has been used loosely and frequently; and yet it is a term that must be as clearly understood as "budget," or "personnel," or any other term which has very specific meaning to us. Here is a definition, not from the dictionary or from any textbook, but from the experience of successful executives: *Organization structure is the medium which makes it possible for individuals to work together in groups as effec-*

tively as they would work alone. That is why we have organization structure. There is no other purpose for it.

If every person in an organization does not understand this concept, if there is not uniform visualization of it, if there is any confusion as to responsibility, authority, and interrelationships, the results are duplication of effort, omission of responsibility, friction, politics, jealousies, all of which create lost time and lost effort. It is very interesting in attacking individual problem cases involving morale or personal relationships to trace the organization structure concerned. You usually will find that such difficulties arise from misunderstanding or confusion as to individual responsibility, authority, and relationships with other people. If an organization's structure is not sound, the people in it cannot perform properly.

Supervision

A second medium of control is supervision. How neglected and abused that simple word is! However, one of the trends of the times is that supervision is taking on new life, new significance, and deeper meaning. The time is here when the position and the importance of supervisors in an organization are taking their proper place. Executives and administrators are realizing that supervision is a tool of management that needs careful consideration and constant sharpening. Many of you have heard on programs of trade and professional association conferences, as well as in personnel circles, such subjects as: "The Part of the Supervisor in Policy Formation"; "The Relationship of the Supervisor to the Line Management"; "The Supervisor's Responsibility toward Management." It is suddenly dawning upon us today that the supervisor is not a part of anything; he is not related to anything;

he is it. *The supervisor is management.* Only to the extent that we recognize that will we make full use of one of the media of controlling the activities of people so that they will work according to our plans and objectives.

Supervisors differ from top management only in degree. The president of a company or the head of an agency might have five thousand people under his direction while a supervisor may have only fifteen, but the supervisor has to secure from those fifteen what the head of the company or agency is trying to secure from the five thousand. The head of an organization may have forty basic activities with which he is dealing; the supervisor may have only seven, but he has to administer those seven activities so as to secure the results that the head of the organization is trying to secure from forty. The head of a unit may have the United States for his territory; the supervisor may have the corner of an office, but in that corner of that office he is the boss, and until we fully appreciate that, some of the human relationships which we desire are not possible.

It is tragic when you hear some worker say, "Why, I like my supervisor. Bill is a swell guy. But why should I go to him with my problem? He cannot do anything about it. He has no authority. All he does is to take my problem to someone else. By the time it has gone through three or four mouths or letters, it is so diluted that no one knows what is the matter with me. Therefore, I would rather go directly to the individual who can settle my difficulty." Wherever such an attitude is present, full appreciation of the value of supervision does not exist on the part of the management concerned. It is a challenge to management to answer whether or not the immediate supervisors of the workers should be encouraged and allowed to de-

velop relationships with those workers which are based upon confidence and respect. If the answer is "yes," those supervisors must be given authority and must be trained to use that authority intelligently.

Up to this point we have dealt with what might be called the basic principles of administration or management. Not a word of it is new, possibly the arrangement is a bit unique. Maybe this simplification of it will help us to understand the great maze of profound thinking that has been done on this subject. Practically every administrator or legislative executive will say that he agrees with these principles. Executives, supervisors, and foremen by the score have endorsed them. Observance of them would ensure better human relationships in any organization and would guarantee fulfillment of the objectives of the heads of these organizations. Then why is it that these principles have not been practiced more commonly or have not been observed to their fullest extent? In trying to answer that question, the group discussions that are included in my experience argue something like this.

MANAGEMENT IS A PROFESSION

Management or administration is a profession. We come to that conclusion because the dictionary tells us that a profession is "a calling in which one professes to have acquired some special knowledge used by way either of instructing, guiding, advising, or serving of others." In any profession there are certain known facts and basic principles that have been discovered by predecessors—those principles with which the lawyer, the doctor, or the engineer does not have to experiment. Centuries of experience tells them that if they will do certain things, certain results will occur. There are other facts and

principles which have not been discovered that are classified in the field of experimentation and which offer an opportunity for the present lawyer, doctor, or engineer to make a contribution to his profession by further discovery.

It is just as true of management, as it is of any other profession, that *there is a field of known facts and principles as well as a field wide open to experimentation and discovery*. Some of the known principles have been presented above.

If management is a profession, if there are certain known principles to be observed, then should not people in administrative and supervisory jobs have some kind of formula to follow that will ensure proper observance and application of the basic principles? As a result of this deduction, months and years of struggling and development give us what is now called a management formula. As it is presented, check it against personnel administration as you know it, and see how many of the commonly accepted personnel practices it includes. On the other hand, try to identify any part of it as not being personnel administration. And yet, executives and supervisors have told us that it is a simple procedure which, if followed in a well-organized, continuous, and thorough way, will accomplish the administrative job. Here is the management formula:

1. Organization clarification
2. Standards of performance
3. Individual analysis
4. Help and information
5. Source (of help and information)
6. Time schedule (for supplying help and information)

Organization Clarification

Organization clarification; what a high-sounding term that is! If anyone had tried to secure the adoption of that term by a live-wire, practical, hard-hitting organiza-

tion, he would have been thrown out as an academic fool. And yet that term was developed by operating foremen, supervisors, and executives who like it. As long as they like it, I expect they will keep it. Just what does it mean? It means that *anyone who has supervision of others should make sure that those people understand what their functions are, what the authority is that goes with those functions, and what the relationships are that they have with other people while performing those functions*.

Does not that make common sense? I ask you if it is not the very basis of morale, if it is not the very foundation of human relationships in an organization? Does it not seem reasonable that a new employee should understand these basic facts about his job before he jumps into situations that create friction, before he accidentally steps into conditions which are unknown to him, and before he cuts his own throat and ruins himself without having the opportunity actually to display the full abilities that he has? Think hard of the situation in which you now find yourself. Are these facts clear to you about your own job? Are they clear to you about the jobs of others with whom you are dealing? If not, you have a situation which is gnawing steadily at the human relationships in that part of the public services with which you are identified.

Standards of Performance

Standards of performance are neither more nor less than statements of *conditions that will exist if the job is well done*. Again, put the magnifying glass of practicality on every one of these steps. Does it not seem reasonable, does it not make common sense that, in order to accomplish a given result in an organization, each person contributing to that result should

have the same understanding as others with whom he is working as to what the organization is trying to accomplish as well as his or her own particular contribution to it?

Can you imagine what would happen in the football stadium or the baseball park if no agreement existed among the members of the team as to the results they were trying to secure? Can you imagine the coach sending the star half-back out on the field with instructions to take the ball and run, and keep running, paying no attention to the goal line, the stadium, or anything else, run anywhere, run as fast as he can, never stop running? No, the coach does not do that. He tells his back field to get the ball and make a first down on four tries. That constitutes satisfactory performance. That is the standard. If by any chance the ball-carrier can make a touch-down on one try, then he has that much better than satisfactory performance and will be recognized for it. While the coach is exhilarated by super-performance, he will at the same time be perfectly satisfied if the standard is reached.

Do you suppose that every employee in the public service in Washington knows exactly what the objectives are of the agency or bureau with which he or she is identified? Is there agreement in every section in this Federal Government as to quantity, quality, and speed of services being rendered? Yet it is the rank and file worker in the public service who is doing the work for the United States taxpayer. If there is confusion as to what constitutes good performance, is it any wonder that there is confusion in the ranks?

Do you not agree that common understanding as to specific job objectives, as well as departmental or organization objectives, affects individual morale and human relations? Do you not agree that it

has a tremendous effect upon an individual worker to be able to return home at night knowing that his work has been performed satisfactorily, knowing that results desired by superiors have been accomplished?

Individual Analysis

Individual analysis sounds like something very mysterious, academic, idealistic, impossible. And yet the individuals who developed this formula created that term. They like it and they use it. All it means is that people in positions of supervision and leadership should periodically *compare the present performance of the individuals under their direction with the standards of performance that have been set*. That sounds rather simple, and yet it is the most important leadership quality known today. It is the ability to tell people exactly what you think of them and still command their respect and confidence.

The future of democratic organizations and processes in this country depends upon the extent to which this quality of leadership can be developed. Under other forms of government, under many of the "isms" gaining prominence today, this quality of leadership is not required. It is not necessary personally to analyze individuals in a way that inspires respect and confidence. Under other forms of life, force, and not influential leadership, commands the respect.

This is the hardest phase of supervision. This is the point at which managers and supervisors get down to the analysis of the performance of their organizations as compared with the objectives. All of the work of the formula up to this point—clarification of jobs and setting of standards—is simply preparatory for this particular step. All that follows in the formula is based upon the findings of this particular step.

This is the point at which "problem

cases" must be squarely faced. So many individuals are known to be problems by everyone in the organization except themselves. Attempts are being made continually to transfer our problems to other departments by misrepresenting their qualifications and their performance. Management cannot and dare not evade individual problem cases. They can neither transfer those problems nor eliminate them until every possible effort has been made to solve the problem by dealing with it on an individual and understanding basis. It is rather interesting to note that leaders who have the capacity to discuss the performance of individuals with those individuals themselves, and at the same time create mutual confidence and respect, do not have so-called "problem cases" in their organizations.

Help and Information

Having decided the functions of each job; having decided the results that will be secured if the job is well done; having discovered how well each employee is performing as compared with the standards; an executive or supervisor now has all of the required information to *determine what each person under his direction requires for individual improvement*. Does that not seem to be the intelligent and common-sense basis for a training program? Does it not seem better to base our training courses and our instructional work on the individual needs of the people in the organization rather than upon some fine, beautiful, costly program developed at headquarters which half the people in the organization do not want and few need? If the management formula has been intelligently applied up to this point, enough individual and group needs will have been discovered for training programs to cover the next five years. List ex-

actly what those needs are from the individual analyses that have been made.

Source of Help and Information

Having discovered what is needed, the next essential step is to determine the best possible source of help and information. Generally speaking, there are at least four. The first is the boss; the second is some specialist in the organization; the third is some specialist brought in from outside the organization, and the fourth is some outside institution of learning to which the individual may be sent. They should be considered in that order.

Schedule for Individual Improvement

The time schedule for supplying help and information appears in the formula simply because of a common principle of life about which there seems to be no argument, that if *we want time, we must plan it in advance*. If all of the previous five steps of the formula have been carefully followed and definite time is not set aside on the calendar, in advance, then the actual individual improvement required will not be supplied. That is human nature.

One of the most difficult bridges to cross in starting a program such as I have outlined here is the time factor. Executives and supervisors will immediately start figuring the cost of doing all this. Actual experience discloses that if the time is established well in advance, practically all employees, supervisors, and executives involved will adjust their work and will arrange the time so there is no panic, confusion, or overtime required. However, if it is announced on Thursday of this week that there is to be a group conference on Monday of next week, chaos results. We find it possible to plan our work to be away on vacations, we seem to be able to

take care of emergencies, we seem to be absent on sick leaves; does it not seem just as reasonable that one of the "musts" on our time should be set aside for a carefully planned program of individual and group improvement?

Observance of Basic Principles

Recall, if you will, the basic principles discussed in the first part of this presentation. If you will then check the steps of the management formula against those principles, you will see that provision has been made for application of each of the principles. For example, step one of the formula, organization clarification, establishes procedure and assigns responsibility, which are two of the requisites of sound policy formation. This step also sets up the organization structure which is one of the mediums of control.

The second step of the formula, standards of performance, establishes individual and group objectives, which constitute the first requirement of sound policy formation. The rest of the steps of the formula—individual analysis, help and information, source and time—are just good supervision, which is the second medium of control that an executive has at his command. In other words, the management formula, like the doctor's formula, ensures the user that he has taken into account the fundamental requisites before arriving at his decision or taking definite action. Experience tells him this. Predecessors have established it for him. Therefore, he does not have to lie awake nights wondering whether or not he is dealing comprehensively and completely with the efforts for which he is responsible.

Method

A presentation of this kind is always discouraging to the reader because he un-

doubtedly will complete his reading with the reaction, "This is all very sound in theory, but how do you actually do it?" There are two reasons why detailed technique cannot be presented here. The first is that technique is changing and improving continually and what would be presented here might quite possibly be different tomorrow. The second is that technique is of secondary importance. If an organization wishes to follow the approach outlined above, that organization, with all of the executive, supervisory, and employee abilities contained therein, will find its own method. The important fact to remember is: if the philosophy is sound, if the principles are sound, then try to apply either the formula suggested here or some other kind of carefully organized management approach. *A sincere trial will develop a method; continued use will constantly improve that method.* Unfortunately, many people shy away from the approach suggested because the method is not clear in all its details or because in many respects it seems imperfect. If someone had not driven the first automobile and others had not used successive models, the 1941 car would not have been possible. Improvement comes only with use.

Consultative Supervision

However, there is one feature of the method that may be presented with some assurance. *The management formula should be applied by consultative supervision.* Functions should be defined in conference with the people performing those functions. Standards should be established in consultation between immediate supervisors and the people who have to reach those standards. Individual analysis should be made by the boss and the worker being analyzed. The worker can

very often make suggestions as to the help and information required, and either the individual or the group concerned should be consulted as to the source and the time in relation to the needs indicated for the improvement of attitude, skill, knowledge, or habits.

To such an observation there is always the reaction "How in the world could we ever get time for all this conference and consultation and individual discussion? We already have more than we can do. The defense program has put additional burdens on our shoulders. We are now working overtime, holidays, weekends. Time! Time! Time!" I wish the circumstances were such that I could show you the results of actual tests on this particular issue. I believe I could prove to you that less total time is consumed if we discuss problems, plans, policies with our people in the organization *before* decisions are made than if we make the decisions, announce them, and then through telephone calls, memoranda, special bulletins, and personal instructions interpret, correct, alter, supplement, and in some cases withdraw the decision completely. It takes less time to let the people in the organization contribute to a decision before it is made than it does to make it and then try to get the organization to understand it.

An organization democracy is a bit different from a political democracy. A political democracy rules by majority; an organization democracy solicits the opinions and contributions of subordinates and associates with the ultimate decision resting upon the shoulders of one person.

Recently, a successful, top-ranking executive made the statement to me, in all sincerity and with quite some truth, "If the workers out on the firing line were creative, they would not be workers. They would be supervisors or executives. If

it were possible for them to contribute to policy, method, and management decisions, they would be in positions of supervision over other people." The point missed is that a group of people, under competent, discussional leadership, can be more creative and constructive than any individual member of the group. Some one member has an embryo idea which may be crude, incomplete, impossible. However, it creates a thought in the mind of some other person; a third adds to it; a fourth creates and amplifies; a fifth modifies, until before you know it a very fundamental and substantial contribution has been made. As someone has said, "Twenty minds are better than one."

Conference Leadership

Much has been written on conference leadership. There are textbooks and detailed instructions. It all boils down into one fundamental guiding principle: *If you are a conference leader, know definitely the question to which you want answers, have in your own mind the best answers that you can possibly develop, and come out of the conference with better answers than those with which you entered it.* That means that the group has contributed; the group has created; the group has helped build. The result is theirs as well as yours.

That is what is meant by consultative supervision. That is what we mean by developing the human factor in an organization. All the management formula does is to chart the course and furnish the instruments with which to sail. What a challenge to real leadership! Do you see why, in the opening comments, we maintained that personnel administration and management are one and the same? Consultative supervision is the fundamental task of executives and supervisors. How much

better it is than spending our time with details, signing appropriations, signing all kinds of forms, answering telephones, writing memos, doing a lot of things that could be delegated to people of less ability. *The hardest job in the world is to develop people.* Therefore, it would seem reasonable that the best ability we have should be directed toward the accomplishment of the hardest job. It is fair to assume that the individuals with the greatest ability are those who have worked themselves into executive and supervisory jobs.

What a challenge this presents to those of us engaged full-time in personnel work. We are trying to spread this basic concept and philosophy of sound management. We are constantly trying to help executives and supervisors catch the viewpoint that administration is not the direction of things, it is the development of people. How much more challenging it is to deal with and discuss the fundamental processes of over-all administration, rather than pigeon-holing ourselves in the realm of specific personnel activities.

There are those who have studied this program without catching the philosophy behind it, and in some cases an unfortunate interpretation has resulted. Such individuals have labeled the program "efficiency engineering." They have had the faulty and superficial idea that the whole management formula is directed toward greater productiveness. In contrast, I submit this theme as a basic philosophy: *Efficiency as an end is an evil, but as a by-product of good morale it is a just reward.* Administrators, executives, managers, supervisors, foremen all over the country, in both public and industrial organizations, are appreciating today that the main objective of an organization is to develop people, to create better workers, better citizens, better morale. Upon the extent

to which this is accomplished depends the quantity, quality, and speed of the production of the workers in the organizations involved.

This is a big job for personnel people. There are still hundreds and thousands of executives and supervisors who either have not caught this philosophy or who do not see the possibility of its practical application. If we spend our entire time influencing the powers of management along these lines, we will have plenty to do, and many of the detailed programs over which we are now greatly concerned will suddenly grow into full bloom as an indirect result of that influence.

SUMMARY

It has been my effort to point out that the basic principles of sound management and the basic philosophies of good personnel administration are identical; to point out that a well-organized and continuous effort along the lines of some management formula will recognize these principles and put them into effect. It has been my attempt to prove that the human factor in an organization is management's responsibility and that, if the administrator will accept this responsibility, personnel administration will be greatly strengthened.

In addition to this, I have tried to establish the thought that good morale is an indication of sound human relationships and that the best way to build morale on the part of an individual worker is to clarify what he or she is to do, to reach an agreement as to when the job is well done, to periodically strike a balance sheet with that individual indicating where he stands in the opinion of management, and to provide each individual worker with a personal improvement program indicating the help required, the source of that help,

and when it is to be given. Is not that human engineering? Is not that good personnel administration? And is not it all management's responsibility?

It means that those in executive and supervisory positions who benefit by your influence toward this end will come to the

conclusion of each year as the recipients of the greatest possible reward any person can have, that of having those who look to them for direction say they are better men and better women and are enjoying fuller lives because of the particular leadership they have received.

2. Seeking a Working Force, by *Lillian Gilbreth**

WE HAVE found in industry that there are a great many things we must actually do ourselves in the industrial plant before we go out to seek a working force. I know what you will say to that. "Our need for the working force is imperative. We simply haven't time during the present situation to stop to do all the things preparatory to seeking this working force. We simply have to go out and get it and do our best to integrate the force into a usable group, leaving it to some hypothetical time in the future to go back to do the preparation which we all acknowledge should be done, but which we feel there is not time to do now."

Of course, in the first place, we all acknowledge that this type of procrastination is not only easy but fatal. Time just never comes when one can settle back and go over the whole personnel problem in order to do the preparation work for seeking a working force. If you are dreadfully busy, then it can't be done, because other things are more important; and if you are not so busy, then it can't be done because you have to economize in every possible way.

Another thing is that, of course, we want this working force to be just as effective as it can possibly be. We are coming to realize more and more that the time to see to its effectiveness is before we actually go out to find it, when we are setting up our standards and when we can do the

kind of selection which results in the least expenditure of time and energy.

That doesn't mean, of course, that we are necessarily going to do away with or cut down on training time, for we have learned from past experience that it is tremendously important. When one goes out to recruit, the end results must be kept in mind as a tempering factor. We know that if we hire people who never can attain what we hope to achieve in the progression of jobs, we necessarily will be replacing constantly, or reclassifying and upgrading continuously. To hire someone who can't go up on the job isn't good procedure. We also know, by very bitter experience, that hiring people who are above their jobs only means that a terrifically rapid turnover will result.

I have the courage, perhaps the temerity, of outlining some of the essentials in industry for efficiency in seeking a working force.

In the first place, of course, we must know exactly what we want. Perhaps you do know exactly what you want, can describe the job, know exactly what it entails, describe to the applicant all the qualifications needed. That isn't the case with us in industry. We find, nine times out of ten, that we have a lot more to learn on

* Adapted from *First Institute on Hospital Personnel Management*, June 26-30, 1944 (Official Bulletin No. 224, American Hospital Association), pp. 27-35.

stating our needs clearly and precisely. We have found the *Dictionary of Occupational Titles* tremendously helpful, whether we agree with it or not.

I have yet to find anybody in industry who agrees with the writers of this *Dictionary of Occupational Titles*. Most people, I think, offer destructive criticism of this thing. Years and years passed while nothing in particular was done before management experts undertook such a project. Usually at management meetings on terminology and job classification, we disputed so long over the first topic for the dictionary that we really never proceeded far beyond it. Here is a group which has taken its courage in its hands and has put before us a *Dictionary of Occupational Titles*. And I think the more progressive element of industry is using it, is supplementing it, is criticizing it, and, what is more, is sending the results of all this use and comment and criticism to the appropriate group to have it included in the new revision. For example, the social service and welfare groups feel that the dictionary is very inadequate in their field, so they are getting together and are preparing and supplying the sort of material that is needed.

When this work was begun, it was found that people doing the same kind of work and having very similar responsibilities had anywhere from half a dozen to a dozen titles—which is a conservative estimate. That same thing is true in industry. In any industry, with either the operating or the personnel group, you will probably find the identical situation—people doing all sorts of things, with different sorts of titles, different types of work, ramifying into different departments, and all uncorrelated. I could spend all the rest of the afternoon talking about the complications arising over merit rating, pay, training, and

promotion, and all that sort of thing. But just in the field which we are discussing, the field of recruitment, selection, training and induction, we will note tremendous progress when we have a dictionary of occupational titles which we all agree upon.

Along with that, and not in the least to be supplanted by the dictionary, comes the job of making your own job analyses, which has to be done, of course, by two groups. It has to be done by the operating group who see what actually is done on the job; and it has to be done by the personnel group who determine the qualifications of the person who is to do the job.

But I realize that it really isn't possible for these two groups to do their best job if they work in mutually exclusive areas. If the personnel group stay in the personnel division and never enter the plant, they never see people on the job, don't know supervision, don't really know all the ins and outs of the job. Personnel qualifications under these conditions will be inadequate. That is inevitable in many ways.

In the first place, by and large, the operating group isn't experienced in checking off personal qualifications against things to be done on the job, and unless they were asked to, they might not put those things on their job analysis at all. They might just leave it to the personnel group. They might think that the personnel group—being highly trained, having a very interesting and rather incomprehensible vocabulary, and having had all sorts of interesting theoretical experience in the fields of psychology and psychiatry—at least theoretically having had all these sorts of things—would just intuitively read into job description, classification, and analysis the kind of person who was needed.

That is a very flattering picture of what a personnel division might be in the eyes of some. On the other hand, there are many who feel that the personnel division absolutely is excess baggage, overhead, and expense, and really knows nothing about operating procedure, very little about industry. These people feel that the quickest and easiest way to get rid of it and return job analyses to the operating group, where it legitimately belongs—and I see their viewpoint there, too—is by making it extremely hard for the personnel division to get information which will enable it to put down adequate personnel traits which are needed.

All of those conditions exist in industry. I don't suppose they exist in your area at all. But in industry they do exist. The problem of having your group in the operating field get job analyses of what is to be done in such shape that the personnel division can do something about these personnel qualifications, and having the personnel group get its notations down in such a way that the operating group can understand them, is a major problem.

Add to this the fact that most of us in industry believe that the operating man should do as many personnel problems as possible in order to be a human, understanding sort of a person, and not rob the job of its human context and its human content. Also there is the fact, of course, that we do want the personnel staff, where possible, to have as much time and as much responsibility and as much share as possible in what goes on in the operating field. Much of this comes back to supervision.

Supervision has a very big job in this whole question of preparing the background for seeking a working force, in that supervision must see that it is a joint project, and that when all this information is together, the final result will be

the best possible combination on which to start to work.

We have been very much helped recently, not only by the *Dictionary of Occupational Titles*, but by what is called a "physical demands and working conditions sheet." You probably have already seen this sort of thing, and perhaps you have used it in your work. I have here the Federal Security Agency sheet, which comes from the Office of Vocational Rehabilitation. It lists job titles and job summaries, and then the amount of physical activity required by the job—walking, standing, sitting, climbing, and so on—and the working conditions on the other side are the characteristics required by the worker.

I do want to make the point that a person cannot expect to take over anyone else's work in other areas, or perhaps even in the same area, without making modifications.

If we have only learned one thing through years in the history of management, it is the necessity of thinking individual problems through, making adaptations, and then standing courageously by them. In the early days, we used to think that we could go to some better managed plant or industry, look at it very carefully, come straight back and use it as a pattern. Well, that was bad enough. We next thought that if we had done a fairly decent job in our own area, we could then go anywhere and set up the pattern. We could go on the Continent, to England, South America, and we could simply say, "This is the way we have done it, and this is the way it should be done by you." Or if we were very modest, "Don't you think perhaps this is the way you should do it?"

I don't think we would even think this, much less say it, in these days, because we have had such bitter experiences where that

sort of thing has been done. In the first place, there are needs for adaptation which can't be dodged; and in the second place, looking for needs and then making adaptations is such marvelous experience for the person who does it.

Evaluating other people's successes or, better still, their failures if they are courageous enough to publish them, is an educating process. If you have this material, look at it, and evaluate it in the light of your own particular needs. Then, of course, you have the means for making a first adaptation, which, if you are lucky, may be very successful; if you are not so lucky and it doesn't work, you have the needs and also the means for re-adaptation. If you grow and progress, as, of course, we hope you will, you will have continuously at your disposal everything to make it possible to do this.

This second type of record is called the physical standards sheet, and I brought it from one of the companies because it seemed stimulating. In the first place, like the government one, it gives the physical activities involved on the job. Then it lists working conditions, and five or six other things. It is not a personnel sheet for the personnel department. It is the sheet, made up by the operating group and supplemented by physical examination records, which makes it possible for the personnel staff to know what the job really is, and to make a better selection among the applicants.

Thus we have the job description, which can be just as useful to the personnel division as joint activities are. If your cooperation and coordination with the operating department is good, an admirable, simple, clear job description will result.

Then there are safety measures. They may not seem tremendously important, but in industry we have found them ex-

tremely important these days, especially with the coming of the various new groups—the inexperienced, the young group, the older group, and especially the handicapped group, who have proved a very profitable source of recruitment. I use the word “profitable” advisedly, because it has been profitable both to them and to industry.

Under this is the heading, “Methods and Suggestions,” which has proved very important. Some jobs have to be made lighter, if you are putting women in where there is heavy lifting. Others have to be changed to put a blind person in, not only from the standpoint of safety, but from the standpoint of ease of operation. The more standardized your material is in its placing and handling, the easier it is for a blind person to handle it.

At the foot of the page is a place for physical conditioning suggestions. We in industry have been very slow to utilize physical education authorities, especially the biomechanics group. We have offered recreational facilities, sometimes geared in with the work day. I hope this will be extended. Suppose you work in Brooklyn and live somewhere out in the Bronx. By the time you have taken a subway or maybe two, you have had quite a bit of exercise affecting your whole work, fatigue, and recreation programs.

The small corps of the physical education group who are trained in biomechanics are able, after surveying the job and testing the individual, to state the type of conditioning necessary to make that person perform the job and swing a day's work without becoming unduly tired. They are able to prescribe kinds of treatments—a sort of pickup—that could be given in the middle of the morning or the middle of the afternoon to enable a person to feel refreshed.

This must work out of the medical department for a variety of reasons. Unless your doctor has the complete control of everything that ramifies into his area, including this matter which is really a part of physical therapy, he feels there are mavericks around loose in the plant. The only person whose opinion the operating force will listen to when it comes to excusing anybody is the doctor. The personnel man might come down and plead that it would be a good thing. Top management might even talk about shorter work hours and higher production, and the operating man will say, "Oh, yeah?" or something equivalent. But when you say, "Doctor's orders. Mary Smith is to go up to the biomechanics laboratory ten minutes in the morning and ten minutes in the afternoon on company time to be conditioned for the job," watch and see fatigue and absenteeism taper off.

Fifteen minutes in the biomechanics laboratory with proper direction at five o'clock in the afternoon will make most people able to go on for several hours. Or if you think you can't stay awake another minute, bend over and very slowly untie your shoelaces and tie them up again, and by that time you will have blood enough in your head to enable you to take at least a half hour more. If you have wiggled your feet enough, perhaps the other shoelace will come loose, and you can profit all over again.

The reason I have gone into this in quite a little detail is because I wanted you to note the greater demands this makes on the entire operating department. I think the weakest point in the whole of management has been the fact that we had a feeling that we could go on making an improvement in one area of management without doing very much about the rest.

Take, for example, the specialty in which I work, which is methods work or job simplification or motion study or whatever you choose to call it. For years we had an idea that we could go out in an industry, and if we knew enough and the group was open-minded and cooperative, we really could expect to make a considerable number of permanent improvements. I find even in the newest and most streamlined industries the most interesting and tremendously valuable development in this field.

Let us look at methods work, for example. Unless top management knows and approves it, you just do not have the backing or the finance or anything else to put the project through. Unless the personnel department is interested, you won't get the right people in to do the work. Unless the operating people know what it is about, and are interested, of course, you will get nowhere when you go out into the shop to put it through. Unless you have a well-working suggestion system, and your motivation is right, it won't last. It will pass at first, but just as soon as something new and interesting appears it will begin to taper off. Unless your purchasing department is geared in, you haven't any hopes of getting the various things that you must have to carry out the improvements that you make. Unless your cost accounting people know enough—not only to tell you how much the thing does cost, but how much it is going to cost to make your change in methods, and how long it is going to be before you can pay for your expenditures and really begin to count on savings—you have no way of keeping adequate records. And most important of all, unless your industrial relations are right, you simply won't get anywhere.

As a matter of actual fact, if your in-

dustrial relations are wrong, nine chances out of ten the fact that you make a change, even if it is a very good change which nobody could object to from any standpoint, it may be just the sort of thing which will bring some industrial relations crisis to a head. It is only when you think of your procedure in the light of entire management procedure that you really do a good job.

The point I am trying to make is that a paper record of this description, which is the part of your job analysis made by your operating group telling you what the job actually is and what has to be done on it, if not done right certainly will get you into difficulties.

Here, by calling in all these various people and saying, "What suggestions have you for methods on this job? What suggestions have you for safety on this job? What suggestions have you for conditioning on this job?" you finally get every department interested and working on it, and interested and working together. You see, a representative of your industrial engineering, your methods department, and your safety, if that happens to be a different department, are geared into a small committee which goes around, job by job, and checks as to whether it is changed and exactly where it stands. Then when this report arrives in your personnel department, you really have the wherewithal to compare the personal qualifications.

I am not going into those personal qualifications because this is the end of the problem where your private experience and industrial experience are perhaps most alike. You certainly use the same methods of testing, screening, placing, training, and promoting.

My specific job today is to bring to you primarily the happenings out in the op-

erating group—a great deal of which has not as yet appeared in books at all.

Now, in the second place, where are you going to look for your employees? Where have we already looked in industry? We, of course, have looked everywhere, and have learned a great many things. We have learned that we could make a considerable amount of adaptation within our industry in order to utilize people available. We have learned that we could not afford in these days of scarcity of manpower to demand such a tremendous amount as we had been demanding. We have gone back to our jobs, and have separated many of them into jobs requiring special skills, we have gone into our problems of supervision, and have diluted our skill and tried to upgrade supervision.

You have some problems which are greater than we face in industry in some ways. I think your problems are more like the problems of department stores in that you have so many of your customers, called patients, right on the job all the time. In industry, we are not plagued with customers continuously on the scene. I can think of almost no area in your work where you do not have present either the customers (patients) or the public (visitors) or both.

On the other hand, you have both the problems and the advantages of the use of volunteers, which we do not have.

We have found, then, that we can use special skills, and you know that it is possible to give people special skills in a very short time. People who are interested, as educators or as welfare workers, in the happiness and future of the human race, are now busy trying to think what will happen to these people with special skills when the war is over. Are we going to keep industry set up so as to use special

skills? Are you going to keep your jobs so that you will use special skills or are we going to demand again a variety of skills on jobs, and are the people with special skills going to be allowed to be trained in the accompanying skills?

We have used many of these people. We have found that older people are very often able not only to do a fine operating job, but an excellent teaching job. How much of that is due to the fact that they have the extra motivation of being wanted, and how much of it is wartime influence, I wouldn't say. It is a complicated research problem to unwind all the various strands of a fabric of that sort.

We have found also that we could use young people, and that the amount of responsibility they took over and the good work they did in many cases were astonishing. There again I am not at all sure how much of it we could expect in the long pull. There has been the novelty. There have been, in many cases, the raptures of being released from other things they were doing, which they didn't like to do, either at school or at home, which I don't think we always have counted as part of the picture.

There have been not only the financial incentives, but all this wonderful fringe of being economically independent, which has had a tremendous effect on the youngster, and has sometimes furnished quite a problem in the home. My oldest grandson, on vacation and earning \$48 a week helping an iceman, furnishes quite a problem, really, when it comes to fitting in the family finance project.

We have found some other surprising things. In many of the industrial plants we thought if we could get city boys they would be far more of an advantage on running machines and understanding machine processes than rural boys. It is just

the other way around. The rural boys knew much more about machinery. They had actually run farm machinery, and in many cases had to help on the repairing. That was one thing in which we found we hadn't taken all the variables into account.

We have found—and I say it with pride with so many women in the audience—that women could do a surprising number of things which nobody thought they could do. When the final record is made, I think we are going to find that most of the changes which disgruntled industry has claimed had to be made because they took women in were changes which were long wanting in industry in any case—better rest facilities, better lighting, better dietetic facilities, better checks on causes of absenteeism. In time these will be charged to progressive procedures. Exactly what is going to happen and how long women are going to stay in industry, I do not know. But they have proved a profitable source of manpower.

By and large, I would say that the trend has been far more toward specializing and individualizing skills than it has been toward general skills and upgrading. It is encouraging to know that the ceilings have gone up on a great many jobs. For example, women have been allowed to hold higher jobs than they ever had before. Even if every last one of them should leave, the record would still be there. We have worked out certain inter-cultural and inter-racial problems by actual demonstrations of tact and cooperation. I note in your own literature that you have done that same sort of thing.

It seems to me at the moment that while we have a tremendous difficulty in seeking a working force, in some ways it may be even harder when this war is over. Cer-

tain people are going to drop out, people are going to come in, and we will have to look forward to a complicated situation.

I think we should be especially proud and happy over the success of the so-called handicapped people who have come into industry. Many, many groups, and I presume you are one of them, have always included not only war casualties but industrial casualties of all sorts on their working forces. And if only you would forget for a moment that somebody might criticize you if you told about it, thinking you were trying to make capital of it, and would share what you have done with your own group in the industrial world, it would help a very great deal.

There are companies who have had blinded people on their staff for a long time; for example, International Business Machines has found that many blinded can work very profitably in the factory and in the offices. They have a blind man on the personnel staff, not primarily to handle the blind, but because he is a fine psy-

chologist in teaching. Thus they raise the status of what contribution can be made by a handicapped person.

Then there is the Armour Company (not the meat-packing company), which works entirely for the Navy. They have taken in people with various handicaps, partly because they were needed for war manpower and partly to encourage the handicapped. They are going into Navy hospitals and giving the patients jobs existing in plants, thereby taking the jobs to bedside patients and to the ambulatory for special laboratory work. They are gearing in the medical therapy department with medical advice of the hospital staff, who are paid, as you would pay a sub-contractor, to build up morale.

If all projects for using handicapped persons—and I am sure you share in them—could be gathered together, and if we added to them our experiments and our findings, both failures and successes, it seems to me that our seeking a working postwar force would be ended.

3. Selection and Placement of Workers, *by Howard L. Davis**

SELECTION of employees is relatively easy if you look for an agreeable associate.

Placement, however, demands more of you. You must prepare yourself well. It is a paradox that people will try to sell you the use of their brains, but will not use their brains in order to make a good sale. To be a good employer requires study. An employer who takes this casually is not apt to do so well. He must work on the problem, and learn to be a good picker. Employment is an art, not an exact science.

For what do you wish to select? Does the job require principally muscle, hand skill, brains? You want an employee who will be interested in the work on which you place him. He should get satisfaction

from that occupation. You want an applicant who will work, think, get along with his fellow employees, patients, the bosses; will have common sense, native intelligence, breadth, and interest in being helpful. He should have a good attitude, and not be too critical, because there are always things to criticize. Preferably, in addition, it would be well if the applicant had learned something of hospital work, and had a fair idea of what to expect.

Therefore, you should consider the whole person rather than concentrate on

* Adapted from *First Institute on Hospital Personnel Management*, June 26-30, 1944 (Official Bulletin No. 224, American Hospital Association), pp. 36-39.

the special requirements for the job; raise your sights, and work continually to build up your general hospital organization. Too many employees find an early level and do not develop beyond that. There are few specialists. It is a fallacy much abused to take for granted that "A good man succeeds anywhere that you place him."

An exception to this general rule is the very small hospital where everyone must engage in a wide variety of activities; in that case you look for one with no particular definite bent.

Specifications should be drawn up for each job in the hospital. These must be made in terms of individual qualifications and interests. Then work as nearly as practicable to this ideal. Designing an application form to fit your own needs will bring out what you need to know.

Physical examinations are particularly necessary for certain types of work, such as washing outside of windows, etc.

The old hunch method is the one generally used as a method of selection. Everyone thinks he is a good judge of people. Many strengthen this method by asking specific questions which have relation to the job to be filled. Then there are performance tests in which applicants perform some operation similar to that which is to be done on the job. General intelligence tests test the "learnability" of the applicant. As now developed, among other things, they are useful in predicting capacity to receive instruction. It is well for you to study everything that may in any way assist you to get the best possible size-up of your applicant. Any method that is advocated may help you more or less in that endeavor. Do not be critical of methods that may seem unorthodox. It is not wise to depend upon one method—rather get all the enlightenment you can

from every available source, and then make your decision.

Your continuing preparation for your job of hiring will have two functions: first, purchasing agent; second, salesman. And you must be fitted for both. For both you need contact with departmental people and knowledge of their problems. Study them and their standards, which are changing because of changed conditions and their new ideas. Have in mind a clear delineation of the responsibilities of each department in the hospital. Know these requirements in terms of individual characteristics. There are two divisions of characteristics for each job: (a) desired trends, (b) trends that would be deterrents on that job. Know the quality of individual you wish to purchase, the market for that quality, and the types of people acceptable to each department. Like other purchasing agents, the more you know of each boss and the work of each department the better you can select for them. You are serving the departments of the hospital, not your own wishes, thus an objective attitude is essential. You will have to know the applicant better than he knows himself.

As a salesman you will use persuasion in selling your hospital. Applicants will judge your hospital and its organization by you. In other words, you will be the hospital to them until they become acquainted with others. Be careful not to oversell the hospital or future difficulties will arise.

Sell yourself to your departments and acquaint them with your problems. This will create understanding and lead to close cooperation.

Study objectively your successes and your failures. Develop yourself in flexibility and originality.

As a selector of people, rate yourself as

a rater. In other words, try to be as objective with yourself as you would be with your applicant. This will help you do a better and better job.

Requisitions from departments should tell you the number of people they wish, the quality desired, and what can be paid. You will have an effect on this by having given them evidence of what must be paid.

At the office, preliminary to interview, it is important that applicants are greeted with reasonable cordiality. It might be well to watch them while they are filling out applications. Do they chew their pencils, and gaze around for ideas? Are applications filled out completely? If not, are omissions through carelessness or a desire to withhold information? Either of these may be an indication of how the applicant would function as an employee.

It is important to have a personal interview; it is very difficult to judge an applicant from a letter or a photograph.

Conducting the interview is not complex when understood. It is preferable to rise, shake hands, greet the applicant cordially, and thus break the ice and let the applicant know that you wish her to relax in a friendly, informal atmosphere. In general you should start the conversation. If the applicant wants to lead, let him lead and see where he lands. Get all the facts you need and do not neglect to test the mental processes of the applicant. Some interviews confine themselves almost solely to factual questions, but that is not enough. Remember that there is no perfect preparation for an interview, nor is there any exact science of selecting people. There is no perfect interviewer. However, that should not prevent you or the applicant from doing the best practicable in preparation.

Again, probe for natural tendencies. Get applicant to talk of interests. This will give you food for many questions. This type of discussion usually is very revealing. If you have put the applicant at his ease, you will be surprised at what you are told. It is not enough just to ask about the interests of the applicant. You should then inquire what he has done about these interests. If he has done nothing, then he is either bluffing or he may be rather futile. Again, you want to see how the applicant's mind works, how he thinks and functions.

My own first question in an interview is, "What would you like to do if you could find employment in that occupation which you most desire?" Try to make the applicant be specific. Do not allow mere generalities. In the first part of the interview, try to make the applicant sell himself to you. Remember that a life insurance salesman tells you how life insurance would benefit you. He does not just say he wishes to sell you something. It is well for you to take notes during the interview. This usually can be done without embarrassment to the applicant if the atmosphere is informal. Your notes during the interview will be better than notes made after the applicant has gone, particularly if it is necessary for you to interview two or three people in close succession.

Note the bearing and conduct of the applicant during the interview. Is he at ease? How does he sit? How dressed? Is he attentive? Clean? How is his poise? Is he forward or bashful? Does he keep his eyes on you or do they wander around the room, particularly immediately after you have asked him a question. Wandering eyes after a question denote that the question is new, and applicant is looking off into space for inspiration. Everything the applicant does or does not do has its mean-

ing. It is an indication of applicant's mentality and attitude.

Of course, character is of prime importance. Will the applicant be dependable and cooperative? What attitude will he have in general, and toward the pay you will be able to give him in the future?

Avoid any complex that you yourself may have. Do not allow any personal prejudice to influence your judgment. Of course, this does not include aversions that you feel are well founded and indicative.

What type of applicant is needed for the opening, (a) a coming leader, alert, with restrained self-confidence, and giving much promise, or (b) the good old wheel-horse, bashful and unimpressive, who probably will stick well to the job with no great aspirations for increased pay or position.

Consider your own attitude. Judge as closely as you can what sort of an impression you are making, and what sort of results you are obtaining both in purchasing new workers and in selling the hospital. Avoid giving a temporary meal-ticket to someone not sufficiently interested to stick to the job, unless you frankly are seeking merely a temporary worker. Make applicant climb for an offer of employment. This will make him appreciate the offer more if he gets it. Do not make excuses for the applicant in your own mind. There is significance to nicotine stains on the fingers, finger nails unkempt—or in the case of women, overkempt—shaving, teeth, etc.

Check to see whether the applicant is sincere, shallow, or bluffing. You want positive results; therefore, in your mind question negative rather than positive answers. Judge whether the applicant can use information that he has or should have. Consider the difference between mere knowledge and real wisdom. Make

a practical selection, "A cynic is a disappointed sentimentalist." Look for balance in the applicant. Again, how can he function? Will he be cheerful from day to day with less than perfection?

A very important part of your work is the offer of employment. That is your best opportunity to ensure a good future attitude of your new employee. Often it is well to make some of his coming difficulties and doubts so clear to him that he will understand why they occur, and the reasons for them. In nearly every organization new employees are subject to critical remarks about the work, the boss, conditions, etc. These are handed out by more or less disgruntled employees, particularly by those who have decided limitations but who vaguely desire more pay and prestige. You should make probable future doubts and difficulties understandable to the new employee before he is subjected to the internal grape-vine.

If you do not offer employment during the interview, you will get an additional line on the applicant by noting how he follows up the interview with a courteous letter or an additional visit. This will indicate how much the applicant really desires the job, also it is revealing to see how the applicant handles the situation.

You may find it desirable to look up references. In such cases, do not take information thus received too literally. More can be learned about the applicant through a telephone call or particularly through a personal visit.

Mechanics of placement help the new employee to become oriented by personal introductions. Give him an idea of how the place is organized, and how each department, while definitely responsible for its own activities, is dependent upon other departments.

4. Personnel Problems with Relation to Civil Service and Government Restrictions, by G. P. Bugbee*

PERSONNEL problems with relation to civil service and government restrictions are a provocative subject as old as organized government. Civil service by literal definition covers public service other than the military, naval, legislative, and judicial branches—in other words, the everyday business functions of government. Performance of public and particularly civil personnel is of interest to every citizen.

Common usage of the words "civil service" has given a narrower meaning. In current usage, civil service implies statutory reform which eliminates political interference in the personnel activities of the civil services of government, substituting a scientific basis for induction, promotion, payment, and dismissal of government personnel, or the so-called merit system. Civil service will here be considered as meaning the merit system for personnel in the civil services.

To President Andrew Jackson is commonly attributed the policy "to the victor belongs the spoils." However, the appointment of government personnel on the basis of political expediency, the spoils system, was old long before Andrew Jackson—probably as old as government itself. Jackson argued that long tenure in office resulted in bureaucracy and emphasized the value of periodic change in the personnel of government. Since appointment by political preference was an accepted fact by both parties, Jackson's interest at the time was primarily in change to the party he represented. However, the words attributed to Jackson have been used to justify change for political advantage, and have furnished a definite objective for the attack of those in favor of reform in civil service.

The movement for reform in civil service in this country dates from shortly after Jackson's term of office. Action by the Federal Congress was very slow, although laws were introduced which had the support of a large number of public spirited citizens. The first civil service law passed by the Federal Congress received approval as a result of the pressure of public opinion following the assassination of President Garfield by a disgruntled office seeker. That law passed in 1883 is still on the statute books subject to amendments made since that date. The Federal Government for the major number of employees, many of the large cities, and some few of the states now have civil service laws.

Civil service has many forms, and differs greatly as applied in each governmental unit. While to the average voter civil service implies the removal of politics from appointment to public office, unfortunately the actual accomplishment under any given civil service law may vary within a wide range. The individual law may be narrow or broad in scope, and every law must provide for a final administrative authority, a commissioner, or a nonpartisan commission. The accomplishments even under the broadest statute may vary widely at the will of this final authority.

Mayor LaGuardia of New York has said that the best civil service law in the country may be useless for the protection of the public if dishonestly administered, while a poor law, through honest administration, may work most effectively. The final authority under the civil service statute becomes the focal point for consideration. This authority is granted responsibility for decisions and regulations sus-

* Adapted from *Hospitals* 14:44-46, Jan. 1940.

ceptible to varying degrees of honesty in interpretation.

All civil service laws to a greater or less degree set a rigid pattern for personnel activities which must be followed by the elected official and his appointive agents. In effect, the law says since we cannot depend on the honest judgment of these men, we will establish by law each step in the personnel department of government, including selection, release, and promotion of individual employees.

A positive value of good civil service is the substitution of some other method than political expediency in the appointment of personnel. Many laws have emphasized this one point to the exclusion of other important personnel considerations. On the negative side the honest administrator finds civil service a restriction upon the play of creative judgment and discretion.

The limiting features of civil service laws are a handicap to the honest administrator. However, the protection of the public offered by these laws may be the most satisfactory method for limiting abuse of public trust by those elected or appointed to office in the public services.

Civil service laws have developed through a history of some years on the basis of a very careful study of personnel procedures. Civil service laws are in a sense mechanized personnel procedures. Intensive study of personnel requirements have been made by those who have developed civil service laws to their present state of effectiveness. In fact, certain personnel procedures were studied and scientifically analyzed by those interested in civil service before the problem had received the same concern by industry. The mechanics of the induction, promotion, and release of employees have been reduced to basic elements, making a con-

tribution to the knowledge of personnel which may well be studied by those who have been concerned only with rule-of-thumb methods in personnel.

Every civil service law prescribes some or all of the following steps which are of value in any intelligent study of personnel:

1. *Individual positions are classified.* A job study is the basis of any such classification. Job studies require conferences with every member of an organization. Each position is studied, analyzing duties and distinctive characteristics. Positions are then grouped into classes on the basis of similarities, and all individual positions are allocated to a certain class or title. The accumulated information becomes the basis for all succeeding steps.

2. *Specifications are established for each classification,* stating experience, age range, health range, education required, and typical duties. These specifications are based on the information from job studies of all positions having a similar classification and the requirements of the position. The administrator must here define the qualification of the individuals from whom he will choose his prospective employees for any given classification. This is basic information for an employment office.

3. *Competitive examinations are given the group defined by the specifications for any classification.* Only those of proper age, experience, and education are permitted to take the examination for a certain classification. Examinations are one of the major functions of the administrative agency created by the civil service statute. The careful choice of the best qualified individual is the ultimate aim of all employers. Unfortunately, the method of examination under civil service laws may not always properly rate contesting individuals according to merit. Appropriations may not permit careful examination,

specifications may be poorly written. However, the usual civil service law makes mandatory appointment in order from the eligible list established by examination.

4. *A graded rating of the relative importance of all classifications is made.* Thus all hospital employee titles might be graded into ten or fifteen general grades, each grade representing positions of approximately similar value. Such a rating of classification is based on the job studies. The rating of each classification is a most difficult problem, as this grade is eventually used for salary determinations. The ordering of the classifications requires real understanding of the duties of the positions, the extent of preliminary education and training, the degree of skill required, and local conditions of supply and demand. At best the final result must have some elements of arbitrary decision. However, this requirement for a rating of classification is in effect the same requirement placed on any hospital administrator when it becomes necessary to make salary adjustments. The average hospital where salary adjustments have been made by rule-of-thumb methods will find that classification of titles on the basis of similar salaries will show positions of widely differing values of equal value on the basis of the salary paid. A careful grading of all classifications is a vital step in developing an equitable basis for compensation.

5. *Actual salary ranges with minimum and maximum salaries are established.* Each grade of classifications having an equal value must have a similar salary range. The final salary ranges will be established on the basis of local market conditions and the supply of well-trained applicants—factors which necessarily are also considered in the grading of classifications from the job studies.

6. *A method of transition from the mini-*

um to the maximum salary is established as a guiding principle in salary increases. Again local conditions of supply, demand, and funds available will have effect. By basing salary increases on tenure and a performance rating, employees are encouraged to develop to the best advantage.

7. *Ladders of promotion are established.* Each employee should know the classifications to which he may hope to be promoted if he performs his duties satisfactorily and makes an effort to develop the abilities required in the higher classification. Examinations for a higher classification may be open in certain instances only to the employees in a lower classification and already in service.

8. *Each employee has a regular service rating.* This rating is necessary in order that the employee be eligible for salary increases within his salary range, or for promotion or discipline. Such employee performance rating by supervisors has received much attention, and relatively practical methods have been established. The progressive civil service law is much more than a merit system for the choice of new employees. Incentives are developed for good performance, for promotion, and for additional training, looking toward a true career service.

9. *Service training for better performance* and as preparation for promotion has received some attention in certain government units. Civil service laws might well stress the value of greater emphasis on such training.

10. *Methods of discipline are established.* Agreed suspension intervals for relatively minor infractions, and discharge for predetermined causes should be well understood by the employee group.

11. *Discharge and other disciplinary measures are subject to review and hearing.* Full right of appeal should be given

the employee, bringing out the true picture of working conditions and requirements. Some civil service laws do not limit discharge discretion by the administrators. However, in general, such action is subject to rigid review by superiors, and appeal to the administrative agency. This principle is receiving more emphasis in industry in recent years. Employees should certainly not be subject to discharge at the whim of a superior. However, protection may be won at the expense of proper discipline if the civil service law is too rigid.

Every hospital personnel department

would benefit by a program in personnel work covering these steps. The mechanics are well established in civil service practices and outlined in the literature. However, merit systems as now embodied in civil service statutes require the continued interest of the public if they are to be effective in developing a career service in public service. The induction of employees other than those with a political interest may be of no assistance in developing efficient government service unless such employees are carefully chosen and given proper incentives for development.

5. Wage Determination; Program and Policies, *by John W. Riegel**

I. Elements in a Wage and Salary Policy.

The major purposes of wage and salary determination are:

- A. To relate the wages and salaries of the institution to those which prevail in the market and in other similar institutions for similar work.
- B. To evaluate uncommon jobs in any field with reference to the pay for related common jobs in the same field.
- C. To establish pay differentials that will induce a sufficient number of employees at any level to prepare for and accept promotions at the next higher level.
- D. To eliminate irregularities in the pay schedule: i.e., to have a standard pay rate or range for each job and to apply that rate or range to the job wherever it is found in the institution.
- E. To compensate the employees on each job in accord with their relative productivity and on the basis of the standard rate for their job.
- F. To improve executive ability to deal with compensation questions, and to apply the rule that an employee's questions regarding his pay are in

order and should be answered by his immediate superior.

- G. To adjust wage and salary issues, as far as possible by rational methods.

II. Difficulties in the Way. Under normal peacetime conditions, wage and salary determination is complicated by:

- A. The numerous jobs whose values have to be kept in adjustment.
- B. The lack of standard job titles; the same name being used to designate different jobs.
- C. Changes in business conditions, and particularly changes in the relationship of supply and demand for given services.
- D. Pressures by organized workers to secure for themselves a larger share of the gross revenue of the institution.
- E. Changes in job content, because of changes in organization or methods, which make the job more or less difficult and important.

* Adapted from *First Institute on Hospital Personnel Management, June 26-30, 1944* (Official Bulletin No. 224, American Hospital Association), pp. 69-79.

- F. Changes in the proficiency and application of the individual worker.
- G. The fact that practically every executive makes pay recommendations and the further fact that these are not naturally consistent. The differences in executives' recommendations regarding similar cases would alone make job evaluation plans necessary to prevent inequalities in pay for comparable work in the several departments.

III. Evaluation of Common (Key) Jobs

A. *Job Families and Key Jobs*

In a complex organization several broad types of work are usually carried on; for example, manual, clerical, technical, and executive types of work. The jobs of each type can be compared for purposes of evaluation because they have common characteristics. Therefore, they can be said to belong to a family.

Administrators select a number of jobs in each family to serve as bench-marks for comparison of the content and for the appraisal of related jobs in the same family. Such key jobs must be common in the sense that there are many buyers and sellers of the services rendered in them. This means that there is a competitive market for such services, with the interaction of supply and demand determining their values.

B. *Surveys of Current Rates for Key Jobs*

In peacetime many leading American firms base their compensation schedules upon the median rates paid by the employers in their localities or industries for services which many of them purchase. The rates paid in the locality or area are of importance in pricing all sorts of jobs; the rates paid elsewhere in the industry are of particular interest in examining the differentials (percentage basis) for skilled

workers peculiar to the industry. Surveys need to be made only with regard to the rates paid for selected key jobs in each broad field of work.

In hospitals the clerical family includes such key jobs as cashier, bookkeeping machine operator, stenographer, typist, stores clerk, messenger, and telephone operator.

In the manual family the food preparation group includes such key jobs as waitress and kitchen helper.

The housekeeping group includes such key jobs as seamstress, janitor, wall washer, watchman, elevator operator, porter, and maid.

The maintenance group includes such key jobs as plumber, machinist, electrician, painter, carpenter, truck driver, and laborer.

The nursing group includes the key jobs of orderly and ward helper.

The technical group includes such key jobs as dietitian, laboratory technician, pharmacist, x-ray technician, and general duty nurse.

It is preferable, although not always possible, to designate key jobs at semi-skilled and at skilled levels in addition to the key jobs at unskilled levels. Such additional bench-mark jobs and their values within any family of jobs aid in appraising other related but less common jobs in the same family.

Because the content of key jobs titled similarly is not standardized, a wage and salary survey should include a comparison of the duties going with each comparable job in each cooperating institution. Some business firms even have representatives inspect jobs in other companies to make sure that those jobs are comparable to similarly designated jobs in their own organizations.

In a wage and salary survey, the specific information sought with respect to

each key occupation includes: basic rates per hour, per week, or per month for time workers, and the regular schedule of hours. Inquiries focus on the highest, the lowest, and the average earnings of individuals in each key group. Learners' rates and premiums for overtime and night work are noted but are not a part of any quotation pertaining to straight-time work. The number of employees on each key job is obtained, so that a weighted average or a median rate can be calculated for the job. Supplementary questions refer to the number of weeks of work usually available each year, to sickness benefits, and to vacation privileges.

If room, board, and laundry are a part of compensation, they are valued and added to the monetary wage or salary to derive a comparable quotation. At present one institution regards the monthly value of food per person to be thirty dollars, the monthly value of lodgings per person to be fifteen dollars, and the monthly value of laundry service per person to be five dollars.

C. Determination of Standard Values of Key Jobs in the Organization

For many reasons, such as human inertia, lack of knowledge, and varying abilities of employers to pay, the labor market does not establish compensation rates accurately. Competition of employers and workers, to be sure, does tend somewhat slowly to narrow the ranges of quotations for any given job in a labor market. But these tendencies are often offset by high bids of new and growing firms and by rate-cutting on the part of unsuccessful firms. Faulty adjustments of the labor market, therefore, present opportunities for trading or bargaining to alert employers and employees.

In view of the inconsistencies of the labor market, each employer must decide upon the basic rates which he shall offer to typical employees in each occupation in his establishment. If the rates are specified in a collective agreement, both employer and employees are concerned with developments in the labor market, since a shift in either direction affects the mutuality of interest which the parties have in a continuation of the collective agreement between them.

Payment of the median rates of compensation current in the locality for each type of service enables a firm to attract and retain workers of average quality. In peacetime the payment of these rates or slightly higher rates reduces controversy over the wage issue, enhances collaboration, and helps to minimize unit costs. That condition in turn helps management to pay the median rates of wages and salaries.

Changes in the cost of living are sometimes urged as a governing consideration in the adjustment of basic wage rates. Consistently followed, this policy would hold the standard of living of the workers to a set level. The policy therefore is rightfully objectionable to employees, although in a period of inflation it can serve temporarily to prevent the standard of living of low-income groups from being significantly reduced.

Regarding the pay of women workers, the practice in prewar years was to value the services of men or women separately. The individual employer's wage scale for women, for example, was set with reference to rates paid locally to women for similar types of work in other firms or institutions. Using the market as a guide in this way one hospital paid orderlies (men) eight cents per hour more than its

rate for ward helpers (women) who did similar work. Under wartime conditions the values of women's services have approached the values of men's services of similar nature. Furthermore, legislation and administrative rulings sometimes require that women shall be paid the men's rate for similar service. Whether women's rates will decline in relation to men's rates after the war is not certain but such a development is probable.

With respect to occasional shortages of skilled workers or technicians, it is to be noted that the supply of such craftsmen cannot be promptly expanded when the demand for them sharply increases. Temporarily, therefore, they may exact a scarcity price, but this should induce additional persons to qualify for the work and thus in time correct the shortage.

The normal differential for a semiskilled or a skilled service should fairly compensate natively qualified persons for their self-development and application in meeting the exacting characteristics of the vocation. The test of any differential is the willingness of an adequate number of employees voluntarily to undertake the duties and responsibilities of the work in exchange for the rate offered.

If in peacetime a given prevailing wage reflects a marked shortage or surplus of the type of skilled labor in question, that wage should not be used as a basing point in a pay scale. Instead it should be circled as out of adjustment. When a shortage of a given skilled group exists, any organization should try to economize in the use of this type of labor, and should explore the desirability of training additional workers. Temporarily it must pay the market rate to keep the essential minimum of these workers. But any such scarcity wage rate should be regarded as irregular and tempo-

rary and should be kept apart from the general wage schedule.

IV. Evaluation of Uncommon Jobs

The discussion to this point has referred to the valuation of common and standardized jobs. A majority of the jobs in many organizations are peculiar to those organizations. No broad market exists for such jobs. Accordingly they must be valued with reference to the values of related common jobs.

A. Selection of Evaluation Factors

In valuing uncommon jobs it is assumed that the same factors which explain prevailing differentials between the values of *common* jobs in any field can be used to interpolate or estimate values for *uncommon* jobs in the same field. Accordingly one step in setting up a plan for job evaluation is to have experienced executives in the organization select and agree upon the factors (reasons) which explain prevailing *differentials or ratios* between the values of common jobs in a given field.

In explaining prevailing wage differentials for common manual jobs, experienced executives have referred to the following factors: scholastic content of the work; length of time typically needed by natively qualified but inexperienced operators to develop proficiency; physical resistance overcome by the operator during the work day; seriousness of possible errors on the job; originality of problems to be solved by the operator; degree to which the work is supervised; teamwork and personal contacts required of the operator; his supervision of others; hazards and disagreeable conditions which he must withstand at work; and any unavoidable expense caused him by conditions of his employment.

Likewise, in explaining differentials for

various grades of clerical work, executives have referred to the scholastic content of the work and the length of time typically needed by natively qualified but inexperienced persons to become proficient in identifying and classifying items to be dealt with and in applying routine procedures. Other occupational characteristics governing clerical compensation are: the seriousness of possible errors or failures on the job; original problems presented to the occupant (a) for analysis and recommendation, and (b) for decision; the occupant's influence over other persons which is expected; physical exertion required; mental strain imposed; trust imposed; and, finally, distracting, fatiguing, or disagreeable working conditions.

Usually the managerial staff selects the factors which it regards as adequate to explain prevailing wage or salary differentials in each broad field of work: manual, clerical, technical, supervisory, and executive. These factors then are used in appraising related uncommon jobs. A number of organizations use less than ten factors in appraising uncommon manual jobs. Ten or less factors have been found adequate in appraising uncommon clerical jobs. More considerations are necessary in grading complex technical and executive services, but these considerations can be organized under a few headings to facilitate the comparisons.

Objective characteristics are preferable for job evaluation purposes. Accordingly, this discussion has been in terms of occupational characteristics rather than in terms of personal qualities or exertion required for different types of work. Attempts to evaluate jobs with reference to the personal qualities required are confused by the personal fitness or lack of fitness of particular employees in those positions.

B. Job Analysis

Precise and adequate information about uncommon and unstandardized occupations is necessary in any attempt to grade them. The information can be obtained from supervisors, time-study men, personnel managers, and the employees themselves. This information on job responsibilities and relationships should be summarized in writing for reference purposes.

C. Evaluation Methods

Two means of evaluating uncommon occupations may be distinguished. One may be termed the "grading" method; the other is known as the "numerical rating" method. Under either method executives first classify all positions into families, then separate the men's positions and the women's positions; they further separate jobs paid on a time basis from those paid according to incentive plans. For example, only clerical occupations of women, paid on a time basis, are grouped for comparison. Preferably each group of this sort should include unskilled, semiskilled and skilled key jobs, whose current values can be determined in the labor market.

1. In the grading method the next step is to grade or rank each uncommon job with reference to a closely related common job by considering both jobs from the standpoint of each critical factor and then arriving at a composite judgment. This grading or ranking process can be facilitated by the use of a graphic scale, each graduation representing one cent per hour, five dollars a month or some other suitable unit for measuring differentials.

In these comparisons and judgments executives should try to avoid reference to persons or existing rates of pay. The grading preferably should be done independently by the members of a valuation com-

mittee for each major field of work. Then the members should meet to compare the gradings made independently and to try to reach agreement on each differential.

The members then refer to the median rate being paid in the market for each key job in the series. These rates are the bases for valuing the uncommon occupations. In this process the differentials already decided on by the committee are added to or subtracted from the values of the related key jobs.

The committee then calculates a model payroll by multiplying the appraised value of each job by the number of employees in that job classification. They compare this payroll with the rates and amounts actually paid to see, first, whether the model rates can be paid from current revenues. If this is impossible at the time the managers can plan to correct any serious inequities within the schedule to the limit of their financial ability, and they can seek additional revenues so that they later can pay the full scale and thus attract and retain capable employees.

A comprehensive regrading of jobs by this process is necessary only at intervals of several years. Preferably, it should be done after business conditions have been fairly normal for some months, so that wage and salary differentials have had opportunity to become adjusted in the market. Between such general reviews, management changes the value rank of an occupation when the responsibilities connected with it are changed. Management also promptly ranks and values each new job.

Furthermore, in case surveys show that an entire schedule should be raised or lowered, the new key values are written in and the proper differentials are applied on those

new bases in order to revalue all of the other related jobs in the family.

2. Numerical rating is also a method of interpolating or estimating the values of uncommon jobs on the basis of the values of related common jobs. In a rating plan, numbers are used to express degrees of skill, responsibility, and application required in the several jobs. The ratings for each factor, of course, are an index of relative status. They are totalled to get a sort of composite index of the relative status of the job. Since common jobs are included in the comparison, the composite index for an uncommon job indicates its value in relation to the known values of related common jobs.

Proponents of occupational rating state that it is preferable to the grading method because it facilitates the valuation of new and revised jobs, it tends to weigh each factor consistently, it indicates proper differentials accurately, it yields a concise record of judgments, and it is sufficiently specific to be helpful in collective bargaining.

In developing an occupational rating scale for a given field, say manual work, the first step is to rank the key occupations with reference to each critical factor. For example, the key jobs are graded and listed according to "length of training period"; then graded and listed according to "seriousness of possible errors"; etc. The next step is to break down the standard rates payable for the respective key occupations in the list—these are the occupations whose approximate values are determinable in the local labor market. The accompanying table indicates such a breakdown among six critical factors.

In this case the cents in the standard rate were multiplied by ten to obtain the total number of credit points. The credit

points distributed were those which exceeded 400, which was the value assigned to unskilled service not exacting in any aspect. This distribution indicated the judgment of the executives with reference

to express its relative standing with reference to that factor.

Rank lists were used for each factor. As any given job was examined and placed at its proper relative level on each list, the

DEVELOPMENT OF POINT RATINGS FOR KEY OCCUPATIONS

Key occupations*	Market Rates (cents)			Company standard wage	Total points
	Mini- mum	Typical	Maxi- mum		
Diemaker, 1st class	80	95	100	98	980
Patternmaker (wood) 1st class	—	—	—	95.5	965
Craneman, 200 ton, double hook	—	—	—	66.5	665
Sand blast castings	—	—	—	64.5	645
Chip, large castings, air hammer	—	—	—	59.5	595
Sweeper	—	—	—	44	440
Base job	—	—	—	40	400

* These are only a few of the key occupations used by the company.

to the portion of the differential necessary to induce employees to prepare for and meet selected requirements or conditions of the stated key occupations.

The horizontal distribution was verified by vertical comparisons. Thus the executives in this case considered whether the training period for their typical diemaker was longer than the training period for their typical patternmaker. If the distributions of these differential credits are satisfactorily made in the first instance, the rating of uncommon jobs is a comparatively simple process.

In the table each column headed by a factor, say the column headed "Training period (skill)," thus became a scale for rating numerically any related uncommon job with regard to that factor. Thus, if a related uncommon job was thought to require as long a preparatory experience as the craneman's job (200 ton, double hook) that uncommon job was given 120 points

placement was compared with other placements already made. Thus the points assigned under each factor to each job in the comparison tended to be consistent. After any job was thus rated under all factors, the numerical ratings assigned to it were added and the total indicated its relative value.

Such a series of tested rating scales for the critical valuation factors in any field is used in assigning points consistently to new or revised jobs in the same field.

When market surveys indicate that values of key jobs have changed, the administrators consider the timing and the amount of the general adjustment in wage levels which they can and should make. The new values for the key jobs are then written in and the values for the related uncommon jobs derived by interpolation.

D. Pay Classes and Ranges

Usually the monetary scale is bracketed

so as to set up various pay classes and thus simplify the pay schedule. The brackets may be drawn at "natural" breaks in the value ranking of the jobs, or the brackets may be a uniform interval of possibly three

V. Adjustments in Personal Rates of Pay

A. *Classification of Individual Employees*

In reviewing the equity of personal rates it is necessary to examine the job classification of each employee. His actual duties

DISTRIBUTION OF DIFFERENTIAL POINTS

Differential points†	Mentality	Training period (skill)	Seriousness of errors	Mental application	Physical application	Working conditions
580	100	360	60	40	20	0
565	100	340	60	40	20	5
265	35	120	70	30	10	0
245	10	60	15	10	50	100
195	10	80	15	10	50	30
40	0	0	0	5	35	0
0	0	0	0	0	0	0

† Differential points are the total credit points minus the 400 points credit for the base job.

cents in the range 59-80 cents, an interval of 4 cents in the range 80-100, an interval of 5 cents in the range above 100 cents. A job falling in the bracket designated 96, even though its exact point value would indicate a value of 95 or 97 cents, would be given a standard value of 96 cents for purposes of simplifying the scale.

While hourly wage scales often specify a standard rate for the job to be received by each fully-qualified and satisfactory worker, salary scales normally specify a spread. It is usual to find the minimum rate for a given salary classification to be roughly 10 or 15 per cent less, and the maximum rate to be 10 or 15 per cent more, than the standard rate for that classification. Thus for the \$200 per month bracket the salary progression indicated for the employees might be \$180 minimum, then \$10 step increases to \$200 standard, then \$10 step increases to \$220 maximum.

should be compared with the duties specified on the pertinent job description. If there is identity of work done and work specified, or no significant difference, the man is properly classified. Otherwise a new job description should be prepared which lists his duties. His job should then be appraised. Permanent transfers and re-assignments should be accompanied by proper reclassification of the individual employees so that they receive the proper rates of pay. Supervisors should appreciate the importance of reporting changes in the duties assigned to any position or to any person. They should also review an employee's pay classification when changes affect his compensation.

B. *Scheduled Increases for Routine Workers*

Some jobs require the performance of only prescribed duties. The employees in such jobs increase in knowledge and pro-

iciency during an introductory period, but thereafter there is little change in the value of their services so long as they fulfill their duties. Their pay increases can be according to schedule during the introductory period, provided they show the expected and desired progress in learning the job. One such schedule for orderlies states a starting rate of sixty-one cents an hour. This is advanced to sixty-six cents at the end of six months and to seventy cents at the end of one year, provided the individual shows satisfactory progress in learning the job and he performs his duties fully. Seventy cents is the maximum rate for an orderly in this institution at this time.

Such a schedule, if properly administered by supervisors, prevents marked discrepancies in pay for like work and it prevents many petty arguments over small pay adjustments for individuals. Supervisors should see to it, however, that services are received for the rates paid.

C. Merit Increases for Other Workers

Many employees are in jobs which provide latitude for individual initiative and resourcefulness in meeting somewhat novel or varying conditions. When the productivity of such employees is different their pay rates likewise should be different, but these should remain within a specified range for the job in question.

To improve the adjustment of personal rates, some companies have developed employee rating plans. In rating workers under these plans, most weight is given to quality and quantity of output credited to the individual. Other qualities commonly rated are orderliness, cooperation, success in personal contacts, care of property, ability to learn, range of usefulness, regularity of attendance, and initiative.

A rating plan for technical workers and

executives can require the superior officer to express his judgment of the degree to which the individual's performance measures up to the responsibilities of his position. The score as to fulfillment of each responsibility can be weighed according to the relative importance of that responsibility. No employee rating should be recorded or used until it has been discussed with the employee himself and any differences of opinion made a matter of record also.

VI. Administrative Arrangements

Each executive necessarily participates in wage and salary administration. His responsibility is not reduced in any way by the principles or methods outlined in these notes. He can be aided, however, by a staff officer who conducts wage surveys, assists in the valuation of services, and sees to it that ratings of individual employees are properly made. A wage or salary committee can be established in each major division of the organization. The chief divisional executives can be the committee chairmen, and the staff man can be the secretary of these committees. While rates in any department are under review, the officer in charge of that department should be a member ex-officio of the appropriate wage or salary committee. All wages and salary recommendations, together with personal rating data, should originate with departmental heads, and be reviewed for approval by the proper wage and salary committee. Each recommendation should be compared with established pay ranges for the employee's occupation and with the recent ratings of his performance.

By the use of these procedures administrators have made noteworthy progress toward the aims of wage and salary administration which were mentioned at the beginning of this memorandum.

6. Comprehensive Health Service for Hospital Employees, by *Arthur J. Geiger, M.D.**

PROBABLY one of the most important, yet neglected, aspects of personnel management in hospitals is adequate care of the health of hospital employees. In view of industry's wide and rapidly growing acceptance of all intramural health services, it is strange that institutions whose commodity is health, namely hospitals, seem in general to have largely ignored or only haphazardly met the problem of personnel health. One would rather assume that hospitals would have been the first to recognize the importance of employee health supervision, and that they would long ago have set up models of personnel health organizations. Actually, few hospitals appear to have established employee health services whose scope and professional quality equal those of our large industrial plants.

Why have the social, medical, and economic influences that aroused industrial management to effective action with regard to employee health failed to arouse equal interest and activity in hospital administrative and professional quarters? Some of the reasons appear to include the following:

1. Lack of the stimulus of the Workmen's Compensation Act in relation to hospitals in many states.
2. The assumption may be made that hospital employees can somehow shift for themselves in the favorable medical environment of the hospital. It takes little investigation, however, to discover that this is accomplished poorly, without satisfaction to employees or professional staff.
3. The belief may prevail that hospital employment involves inconsiderable health hazards as compared with industry. This is not entirely true, particularly in hospitals that admit contagious cases; and we must

never forget the alarmingly high morbidity of pulmonary tuberculosis among nurses and resident physicians. Even if hospital work involved few health hazards, the argument would be irrelevant because, as Heiser has shown in his book, 85 per cent of sickness absenteeism in industry concerns nonoccupational injuries and illnesses to which the hospital employee is also victim.

4. Finally, an indifferent policy with regard to personnel health may seem to be the cheapest way out. This is admittedly an indefensible attitude; moreover, it is probably a fallacious argument, as was brought out by Irma M. Biehnen in a survey made in 1939 of the cost of personnel sickness and medical care at New Haven Hospital. The cost to the hospital was estimated at about \$30,500 for an "employee" population constant of 991,† or \$30.80 per person per year. One must also add such intangible costs as loss of efficiency in hospital services due to sickness absences of workers whose tasks either remained undone or were less competently performed by inexperienced substitutes.

What is the gain to the hospital for its expenditures in establishing a formal personnel health service of good quality and adequate scope? In the absence of known relevant data from hospital sources, one must turn to reports from industry for an answer, for the gains would in most respects be similar. The following are excerpts from Victor Heiser's survey made

* Adapted from *First Institute on Hospital Personnel Management*, June 26-30, 1944 (Official Bulletin No. 224, American Hospital Association), pp. 131-142.

† Figure includes 68 resident physicians and 200 members of the Yale Nursing School.

of 1,625 industrial firms with plant health services who reported as follows:

1. Ninety-five per cent of the firms considered their health programs to be money-saving ventures.

2. The chief measurable gains were a diminution of claims for accidents and industrial diseases, reduction in absenteeism from preventable illness, and shorter absences for minor, untreated or tardily treated ailments.

3. Eighty-five per cent of the firms believed that their employee relationships had been improved, that labor turnover was diminished, and that plant efficiency had been increased.

Today the importance of conserving the health of hospital employees is more important than ever. The war's drainage of manpower from civilian occupations has probably been felt nowhere more acutely than among hospitals. The resulting employment vacancies are being filled, when filled at all, largely by older and less vigorous workers who must carry heavier than normal loads of work. The economic value of the worker is influenced directly by his health, vigor, and morale, and the hospital gains when these values are deliberately conserved and protected.

It would appear, therefore, not only that concern for the health of personnel and provision for its adequate supervision are fitting social and medical obligations of the hospital, but that they represent also major matters of administrative interest whose neglect may be reflected unfavorably in the operating budget of the hospital and in the effectiveness of the services rendered to the community.

PURPOSES, SCOPE AND PHILOSOPHY OF PERSONNEL HEALTH SERVICE

The functions of a health service for

hospital personnel are to assure the employer, the employee and the patients of the hospital that the health of the worker is acceptable for the task he is to do; to diagnose and treat the injuries and illnesses suffered by employees; to safeguard the health of the employee through the practice of preventive medicine; and to study the problems of personnel health as a departmental function. The varieties of professional activity which are necessarily concerned in such a general health program include the following: (1) pre-employment examinations, (2) periodic routine re-examinations, (3) transfer (? terminal) re-appraisals, (4) daily office consultations, (5) inpatient professional care, (6) health education, (7) intramural health surveys, (8) health clinic studies and reports.

Pre-employment and Periodic Medical Examinations

The primary objective of the medical examination is not to exclude all but physically perfect and healthy applicants, but rather to ascertain the health status of the new worker, to offer such medical corrective measures as may be indicated, and to verify the suitability of the worker's general health to his working assignment. While the pre-employment examination should logically precede employment, it may be impractical to apply this rule rigidly in the face of an excessively rapid personnel turnover. Our practice is to accept a new employee provisionally for one month and to schedule him for his employment examination within that period; food handlers and those of obviously questionable health are given priority in their appointment for examination. Although at least two-thirds of our applicants for work would fail to meet military health standards, we have actually barred from employ-

ment for reasons of health less than 0.5 per cent of those applying for work, and we have had no cause to regret this liberality.

The medical examination should be as thorough and competent as that which a good internist would perform in private practice. Among female employees the rectal and pelvic examinations are advised when indicated by the medical history, and it is the patient's choice whether the personnel physician or a consulting clinic or specialist will perform the examination. Minimum laboratory tests include a urine analysis, a Kahn test of the blood, and a roentgenogram of the chest. Food handlers must have pre-employment and periodic reexaminations of the stools to exclude dysentery carriers. Further resort to laboratory tests of any sort should be available when indicated. The pre-employment and at least an annual x-ray examination of the chest, though relatively costly, is in our opinion the single most important and economically justified detail of the entire medical survey, for no other method of examination can approach this technique in the detection of tuberculosis in its most important stage.

Routine re-examinations of all workers should be made at least annually, and whenever an employee is transferred to another department or assignment the health status should be reviewed in relation to the new job. While a discharge examination at termination of employment would be ideal, this is not apt to prove feasible, in the face of a large personnel turnover, without considerable extra cost in professional time.

The pre-employment and routine periodic examinations should and can be made compulsory with little resulting objection from employees if the object and value of

the examinations are presented in the proper light.

Office Consultations and Continuing Professional Care

Inasmuch as a fundamental purpose of the health service is to maintain employees at the maximum level of health and efficiency, it appears irrelevant from the standpoint of professional concern whether or not the illness or injury with which the worker presents himself is a result of his work. For the same reason it is also irrelevant whether the illness or disability antedated employment or followed it. Adequate personnel health service should and must offer practically total professional care for employees, regardless of the nature of the illness; and that has been our policy. We make exceptions only for obstetrical deliveries, optical refractions, and routine dental care; but even these services are available to our auxiliary employees through reference to the outpatient clinics of the New Haven Dispensary.

Domiciliary, Infirmary, and Hospital Care

The provision of professional care for employees confined to bed is an essential feature of a complete personnel health service plan.

Employees living either within the hospital or in adjacent or nearby dormitories or apartments can be readily attended by the personnel physicians when confined to bed at home for illnesses not requiring hospitalization. The extension of domiciliary care beyond these boundaries considerably increases the magnitude of the professional care problem for the personnel physicians and is costly for the hospital; the home care in such cases may be left to the family physician.

The confinement of employees to bed in

hospital dormitories presupposes that food, toilet facilities, and simple nursing attentions will be available. Lacking these, the hospital should provide infirmary facilities. If the infirmary can be located in close proximity to the personnel health clinic, the professional staff of the latter can probably extend their oversight to the infirmary without additional professional help. In the absence of infirmary facilities it becomes necessary to resort more frequently to hospitalization of employees at greater cost to the hospital.

The accommodations provided for employees who are hospitalized will depend in part on whether the personnel make any contribution toward the cost.

Employees at the New Haven Hospital all belong to one of two hospitalization prepayment plans which provide ward accommodations for auxiliary workers and semiprivate accommodations for all others. The patient should have the privilege of choosing more costly accommodations by paying the difference in cost. The professional care of hospitalized employees can be delegated to the personnel or hospital staff physicians, who may be induced to offer their services gratis under the circumstances.

Health Education

An important detail in propaganda is the distribution to every new employee of a leaflet describing the Personnel Health Service, with emphasis on the benefit of the service to the employee, assuring him of the confidential nature of his medical record, and informing him of the full breadth of professional service extended to him both in the Personnel Health Clinic and through recommended hospitalization. Herein are also stated the office and consulting hours of the Clinic, the vacation

and sick-leave privileges, and perhaps pension arrangements.

Periodic Health Bulletins

These may be issued in the interest of simple preventive medicine. Examples are bulletins on the prevention and simple care of colds, sunburn, ivy poisoning, athlete's foot, dietary education, the detection of early symptoms of tuberculosis and cancer, and other subjects which an imaginative personnel physician can readily conjure up.

Intramural Health Surveys

The personnel physician is in a most advantageous position to learn of unsatisfactory environmental conditions affecting the morale, efficiency, and health of one or another group of employees, and it is his privilege and duty to make investigations and recommend corrections to administration. Such surveys may concern the working environment with regard to temperature, lighting, hazards, kitchen and dining facilities and conditions, rest facilities, work hours, sickness leave arrangements, vacation programs, etc.

Monthly Work Analyses, Annual Reports, and Personnel Health Studies

Since the Personnel Health Service is a department under Administration, the hospital director has a right to expect at least an annual report of the nature and volume of the work performed in justification of the expenditure. Other relevant investigations may include morbidity studies, cost analyses of employee illness and health service, causes of absenteeism, etc. The gathering and analysis of such data is, in fact, one of the more instructive and interesting aspects of personnel work, and serves as the basis for effective arguments for expansion of facilities, equipment, and assistance.

Assumption of Costs of Personnel Health Service

If the experience of industry may be taken as applicable to hospitals, it would seem economically worthwhile for the hospital to assume much or all of the costs for personnel health service excepting the costs of hospitalization. That has been the policy at the New Haven Hospital and, as will be brought out presently, this policy has appeared economically acceptable.

PHYSICAL AND PROFESSIONAL ORGANIZATION OF THE HEALTH SERVICE

The description which follows is virtually a picture of the organization that has evolved at the New Haven Hospital during the past three years. It is not held up as a model of perfection and efficiency, for we have not yet overcome all of our known deficiencies, and we are still encountering new problems and discovering shortcomings. The quantitative aspects apply to a personnel census of about 800 to 850 employees in a general hospital associated with a complete outpatient department of specialty clinics whose facilities are freely available for a portion of the personnel health work.

Location and Architectural Features

The Personnel Health Clinic should be centrally located in the hospital so as to be within convenient access to most employees, preferably adjacent to the Personnel Office for ease in cross-communication, and well separated from other outpatient clinics to emphasize the individuality of the Personnel Health Clinic as distinct from Dispensary clinics.

Our clinic suite includes a waiting room shared by the secretary, and flanked on one side by a combined surgery and consulting room and on the other by a second

consulting room. Each consulting room is divided with a draw curtain behind which the patient may be prepared for examination while the doctor is otherwise busy in the room. The nurse has a private office from which she can communicate by telephone with department heads concerning patient's affairs without being generally overheard. We have included no laboratory, since all this work is performed by established clinical laboratories of the hospital. An adjacent toilet is desirable for the ready procurement of urine and stool specimens. A refrigerator for preserving biological products and laboratory specimens is desirable, and a cabinet from which most commonly used drugs may be dispensed will save employee's time if the hospital pharmacy is not nearby.

Case Histories

Accurate, detailed, and permanent health records are kept on every employee, and these records are either part of or by themselves constitute the Unit Histories which are prepared and filed for all admissions to the New Haven Hospital and Dispensary. In the interest both of convenience and of guaranteeing the confidential treatment of employees' health records, which is emphasized as an important detail in the minds of most hospital workers, we keep all personnel histories in a lockable file within the Personnel Health Clinic, and none but the professional staff of the Health Service have access to these records. If the worker leaves the hospital's employ, his health history is transferred to the central record archives of the main hospital for permanent storage or future use.

The Professional Organization

Two part-time internists and one part-time surgeon constitute the regular medi-

cal staff of the Personnel Health Service, and these are assisted, when desired, by the attending staffs of special clinics of the Dispensary to which auxiliary workers may be referred, and by a selected staff of consultants in private practice to whom non-auxiliary employees may be referred for consultation or specialized professional care. One full-time nurse and a part-time supervising nurse have proved adequate for our needs, and we keep one full-time secretary busy.

The qualifications and personalities of the professional staff are vital to the success of the Personnel Health Service, for hospital employees are relatively sophisticated in medical affairs and are apt to be more critical of the professional service than are industrial employees generally. For this reason the medical staff should consist of well-trained and matured physicians, rather than interns or resident physicians, and we expect a courteous and understanding or sympathetic personality in addition to efficiency and secretiveness from the nurse and secretary.

The Personnel Health Clinic is open between the hours of 8 A.M. and 5 P.M. daily except Saturday afternoons and Sundays. The combined time required of the regular medical staff for our clinic varies from five to seven hours per day, and this is distributed through two regular consulting periods: one from 8 to 10 o'clock in the morning, and the other at 4 P.M. Both internists usually attend the busier morning office hours, and one internist and the surgeon are usually present in the afternoon hours. Patients who require attention when the Health Clinic is closed or the personnel doctors are unavailable are seen in the Emergency Room of the hospital.

Sickness Leave

All our employees are granted two

weeks of full salary during sickness absence in any one year, and all become eligible for sick leave after three months of employment, with remuneration on the basis of one and one-half days' wages for each month of employment. Vacations are not substituted for sick leave.

Record Forms

In a busy clinic, where a large volume of work must be done with limited time and help, the use of carefully planned printed forms has been found to conserve time and enhance efficiency. We have therefore devised and found satisfactory a printed history and physical examination form suited to our particular needs, and various day sheets and notifications slips which facilitate the keeping of work-records and simplify intramural communication.

A TYPICAL YEAR'S EXPERIENCE IN HEALTH SERVICE

A summary of our experience for a typical year will indicate the scope, volume, and character of the professional activity to be anticipated in hospital personnel health work. While the data to be presented apply to a personnel census of about 850 (including 65 resident physicians and 7 members of the Yale Nursing School faculty) the figures may be readily interpolated to apply to either larger or smaller hospitals.

Office and Clinic Visits

The tabulation below shows that an average of 25 employees received health service daily, of which about 80 per cent (including hospital care) was administered directly by the regular professional staff of the Personnel Health Clinic, and the remainder was contributed by consulting clinics and specialists.

Personnel clinic visits	5,955
Visits to dispensary clinics	1,005
Visits to private consultants	650
<hr/>	
Total visits	7,610
Daily sick call average	25
Sick call rate	3%

The daily sick call rate of from 2 to 3 per cent of the employee group has been found to prevail generally in industry also and may be taken as a representative figure in estimating the health service demands for hospitals of any size. The call for medical services in such volume amply justifies the hospital's taking an active interest in the health problems of its employees.

The distribution of the cases among the professional staff of the Personnel Health Clinic gives some evidence of the nature of the sick calls and the work load of the several members of the professional staff. This is shown in the table which follows:

Visits handled by internist	2,279
Visits handled by surgeon	773
Visits handled by nurse	2,903
<hr/>	
Total	5,955

It is apparent that the case load of the two internists, which includes between 700 and 800 pre-employment and routine periodic physical examinations annually, was about three times that of the surgeon; this indicates the much greater incidence of medical in contrast to surgical problems in such personnel work. The figures also emphasize the large and important role played by the nurse in the daily work of the clinic. An experienced nurse with good judgment can handle and dispose of a great number of the minor matters within her scope that bring patients to the Personnel Health Clinic, and the resulting economization of the physician's and surgeon's time is obvious.

That the Personnel Health Clinic was

not regarded with disdain by the employees is readily evident from the figures of patient visits presented above. Further evidence that attendance at the clinic had no social or class stigma is seen in the following tabulation, which shows that employees of all categories attended freely and in reasonable proportion considering the sizes and characters of their groups.

Employment Category	Roll	Visits	Visits Average
Administration	23	54	2.4
Graduate nurses	215	1,136	5.2
House physicians	65	242	3.7
Other professional and technical	148	554	3.7
Clerical	72	857	11.8
Auxiliary	300	3,112	10.3

These data testify to the desirability of a Personnel Health Clinic in the hospital, and they indicate that the confidence and voluntary patronage of employees of all categories can be won by medical service of an acceptable quality. The benefits accruing to both employer and employee under such favorable circumstances must be significant.

It is interesting, finally, to note the most common causes for sick calls at the Personnel Health Clinic. As one might anticipate, respiratory complaints were about twice as common as any other disease or group of closely related diseases, and by far the largest number of days lost from work were on this account. From the preponderance of respiratory illnesses it is obvious that there was a considerable seasonal variation in the sick call rate, with the peak load falling in the winter months when the infections were most numerous. Recognition of this natural phenomenon permits better planning of hours and vacation periods of the professional and clerical staff of the Health Service.

Laboratory Services

The volume of laboratory tests and services performed on nonhospitalized employees during the year are summarized in the following:

X-ray	848
Chest	714
Skeletal	108
Other	26
Clinical microscopy	1,259
Bacteriological	62
Blood chemistry and Kahn tests	672
Basal metabolism	38
Electrocardiograms	26
Miscellaneous	4
Total	2,909

Inpatient Professional Services

Hospitalization was provided for 129 employees for a total of 1,167 patient days during the year, which represents an average of 1.5 days of hospitalization per employee per year. In addition, 31 graduate nurses were cared for in their infirmary for a total of 135 days, and about 20 house physicians were attended in their dormitory for brief and minor illnesses.

As might be anticipated, the preponderance of hospitalization was for acute infectious illnesses, diseases requiring surgical treatment, and tuberculosis. Tuberculosis has undoubtedly been our most important intramural public health problem. Its seriousness became evident from the disclosure during our first year of operation that almost 9 per cent of all the routine chest films obtained on our employees showed significant infiltrations, and on further study several of the cases proved active or probably active. Inactive cases are not denied employment, but we see that these workers are not assigned to work in the dietary, pediatric, and obstetrical divisions of the hospital, and in some instances we permit only part-time employment.

The foregoing brief remarks illustrate

the large variety and quantity of clinical work that will engage the attention of a formally organized and actively functioning health service for hospital employees. It is apparent that the existence of such an organization is amply justified on professional and sociological grounds. Our experience indicates that such service is freely sought and therefore presumably found acceptable or desirable by practically all personnel in all employment categories.

That a formal personnel health service is also economically justified will be the subject of the concluding remarks.

COSTS OF PERSONNEL HEALTH SERVICE

A statement and analysis of the operating costs of a health service such as the one here described is relevant to this discussion, because the feasibility of any plan for comprehensive health supervision for employees must be judged not only by the anticipated medical results but also by the approximate cost of the program. Moreover, a reasonably accurate estimate of the approximate per capita cost may serve as the basis upon which might be reckoned the relative share of such costs that might be distributed between the employer and employee. The presentation which follows is based on our experience during a typical fiscal year (1942-1943).

Personnel Health Clinic Costs

The professional service costs are shown in the following tabulations:

Medical staff salaries	\$3,500
Payments to consultants	668
Outpatient clinic charges	1,290
Physiotherapy charges	161
Salary to nurse and secretary	3,148
Total	\$8,767

The expenditure of \$8,767 was less than one should make provision for, because the rate of remuneration to the interested

and cooperating physicians, including those of the regular health service staff as well as the consultants, was probably at least 50 per cent less than many or most hospitals would ordinarily have to pay to enlist professional service of similar quality. A more reasonable estimate for the professional service budget for a comparable employee census would be \$10,000.

Laboratory service costs were estimated at probable cost to the hospital, and their evaluation was \$4,103.

The cost of furnishing, equipping, and remodeling the suite of rooms to serve our purpose was about \$1,500, and this sum is being treated here as amortized over a period of ten years, with the resultant cost for the year being \$150.

Drugs and pharmaceuticals, all of which were distributed gratis to the employees, totaled \$284, and expendable supplies cost another \$181.

The theoretical cost of operating the Personnel Health Clinic is summarized in the following tabulation:

Professional services	\$ 8,767
Laboratory services	4,103
Furnishings, equipment and amortization	150
Drugs	284
Expendable supplies	181
Total	<hr/> \$13,485
Per capita cost	\$16

Thus, the theoretical cost of operating the Personnel Health Clinic was approximately \$13,485, or \$16 per worker per year. It is probably permissible for the administrator of a hospital of any size to estimate the yearly cost of a similar health clinic at from \$15 to \$20 per worker, with the lower figure applicable to hospitals with the larger employee census because of economies resulting from the handling of larger units of work.

Inpatient Professional Care Costs

The occupancy of hospital beds by employees during the year, which totaled 1,167 patient days, was evaluated at \$8,222 using the usual room rate for the types of accommodation concerned. It was estimated that about half of this cost was borne by the employees, all of whom are obliged to subscribe to a prepayment plan for hospital care. Graduate nurses utilized the Infirmary for a total of 135 patient days, the cost of which is roughly estimated at \$3 per day, or \$400 for the year.

Sickness Leave Costs

The cost of hiring substitute help to replace employees absent because of illness should theoretically be added as a health service expense, and ordinarily this might be represented by the wages and salaries paid for such substitute help. However, in a year when substitutes were practically unobtainable, the hospital had no readily computable expense of this nature. Referring back to the more normal year of 1939, the cost of hiring substitute help was about \$5,000, and this figure may serve for the purpose of this computation as an approximation for normal peace-time conditions.

Summary

The total cost, therefore, of comprehensive health service to personnel, and the cost of employee sickness to the hospital may be summarized as in the following table:

Cost of personnel health clinic	\$13,485
Hospitalization deficit (estimated)	4,111
Infirmary costs (estimated)	400
Substitutes' salaries (theoretical)	5,000
Total	<hr/> \$22,996
Per capita cost	\$27

The total cost of \$22,996 for a personnel population constant of 850 represents a

year's per capita cost of \$27. This figure is actually a few dollars less than the cost disclosed in a similar study made for the New Haven Hospital by Irma M. Biehusein in 1939, when supervision of personnel health was haphazard, unorganized, and admittedly inadequate.

Conclusion

Inasmuch as comprehensive health su-

pervision of good quality can be provided by the hospital for its employees at a cost to the hospital not greater than may prevail in the absence of an adequate health service, the establishment of proper health controls through formal personnel health organizations within hospitals appears economically as well as medically and sociologically justified and should be more widely introduced.

7. Have You Considered a Pension Plan? *by Otho F. Ball, M.D., and Robert F. Spindell**

FOR a long time the trustees and superintendents of hospitals throughout the country have recognized the need for a reappraisal of hospital compensation programs.

This need has obviously been greatly accentuated by the severe loss of personnel to the war services, to war plants, and to other business concerns that pay higher compensation, on the one hand, and by the limitations of the wage stabilization program, on the other.

Most of our hospitals today are confronted with the very real problem of retaining even those employees whom they considered members of their permanent staffs and with the corresponding problem of attracting new employees.

From the very beginning hospital employees have felt a calling somewhat comparable to that of doctors or ministers; they have been at least partly motivated by the unselfish Christian desire to help others in distress. This attitude and the limited funds available for hospital salaries had the expected and accepted effect of a lower level of salaries for such employees than for employees in almost any other business or institution.

We must now reexamine these two reasons for the lower compensation of hospi-

tal employees to determine whether they will satisfy the requirements of the efficient hospital today and in the years following the war. Those who manage hospital staffs daily see the inability of the call of the hospital work to prevent valuable employees with many years of service from leaving for more lucrative positions.

We cannot say that these people are losing their unselfish spirit of service, for the increased cost of living and the high salaries paid to their friends and relatives in other fields are sufficient to tempt the most devoted. Yet some hospital superintendents have sensed in recent years—indeed, during the last decade—a lessening of the spiritual and an increase in the material factor as an inducement in hospital compensation.

Two other factors of much greater significance have occurred which, in the opinion of most hospital administrators and trustees, demonstrate the inadequacy of the present system.

The first is that the tremendous growth of hospital use by reason of the Blue Cross Plans has increased greatly the number of employees needed to operate our hospitals.

* Adapted from *Mod. Hosp.* 61:53-55, Nov. 1943.

This demand has exceeded the supply of those who are willing to work in the hospital partly because of love for their work and the satisfaction derived from helping the ill. Therefore, to acquire a competent, adequate, and efficient staff of permanent employees today, something more must be paid to them than their present relatively low salaries.

The most effective methods for meeting this need, in our opinion, are not merely to raise salaries so far as conditions will permit but to make a strong inducement to employees to come and to stay in the form of an attractive pension plan. More will be said on this point later in our discussion.

The second important factor that has fundamentally changed the compensation picture is the amazing growth of private and public pension plans throughout the United States since the advent of Federal Social Security in 1937. Charitable, educational, and like institutions, including hospitals, are not now included under the Social Security Act, although it is expected that they will be included under some future law.

Employers recognize, however, that the pension payments provided under the Social Security Act are inadequate and they have proceeded to supplement them by substantial pensions provided in their own private plans. Long before the Social Security Act there were thousands of employees' pension plans in effect in this country, and among the most important of these were the pension plans for ministers, teachers, and many different groups of municipal employees.

Here is the essence of our point. In institutions in which the employees' compensation was below the level in business concerns, the trustees or governmental au-

thorities, depending upon the body concerned, supplemented the lower compensation by the effective promise of adequate incomes for retirement. Once the employee could be shown that he would not have to save part of his low income to provide for his old age, he could release his present salary for current expenditures with relief of mind from the overhanging fear of poverty in old age. To women employees, even more than to men, this provision for the future was of vital importance.

Most of these pension plans in quasi-public institutions, to which category hospitals necessarily belong, are contributory. The employees thought so much of the need for retirement incomes that they induced the trustees or governmental body in charge to set up pension plans whereby the institution or the governmental body would match the contributions made by the employees out of their own present inadequate compensation. Today the trend is more toward a larger share or all of the contribution by the employer; this is a problem that will vary with each institution.

The phenomenal growth of Blue Cross Plans and related projects, with the resultant increase in occupancy so that most hospitals are taxed to capacity, demonstrates that hospitals can now afford to undertake pension plans for their employees, apart from the fact that they will certainly be compelled to increase compensation in some form from now on. When the demand exceeds the supply, a fundamental law of economics is that a higher price will be charged for the product or service supplied. The operation of this principle everywhere today is altogether too vivid.

To return to our point: if a few cents a hospital-bed-day are added to the present charges, sufficient money would be pro-

duced, without noticeable effect, to provide an adequate pension plan for all permanent employees. Each hospital will, of course, have its own definition of the term "permanent employee," but in most cases it will probably include those who have been in its employ three or four or five years.

A study of the figures required for a typical pension plan demonstrates rather quickly that the cost, while substantial, is not too large and that considerably more benefit can be achieved by an expenditure of a given sum in a pension plan than by an increase in compensation in any other given form.

Aside from the compensation problem, private pension plans have frequently been considered by employers as producing tangible results which in and for themselves more than justify the cost of the plans. One of these results is the definitely improved morale of employees. They lose the fear that has been hanging over their heads for years that they will have to stop working some day and will have no income to take care of them in the later years of their lives. They appreciate the employer's efforts in working out a detailed program for them and they show it in increased loyalty and increased effort.

It is axiomatic that to maintain progress and hold one's own in business, the older men and women—the superannuated employees—must, at the appropriate time, be retired and their positions filled with younger workers. The pension makes it easy to let the older employees go to enjoy the remainder of their lives in leisure; and it encourages younger men to stay with the hospital, since they know they will be promoted when a man retires, instead of being required to await his death or incapacity.

A pension plan helps attract competent new workers. The head of a well-known business concern recently stated that eighty out of every hundred applicants now interviewed for new jobs inquire whether the company has a pension plan, whereas a year ago only a dozen out of every hundred made such an inquiry.

The foregoing discussion of the applicability of pension plans to hospitals and their employees demonstrates that there is a great need for such plans in the hospitals of our nation. The funds are available or can be easily raised in most cases.

From the point of view of immediate need alone, the pension plan has a great deal to offer and progressive trustees and superintendents will explore its possibilities. From the long-run point of view, we hazard the guess that before many years have passed private pension plans in hospitals will be the rule.

ADVANTAGES OF PENSION PLANS

The pension plan does much more in solving the increased compensation problem than does any other form of compensation.

Compensation through a pension trust is the only method by which employees' compensation may now be increased without obtaining ultimate approval of the salary stabilization unit of the Bureau of Internal Revenue.

The pension plan will help hospitals retain their present employees and reduce turnover both now and in the postwar years.

It will serve as an incentive in attracting competent new employees.

It will bring hospitals abreast with the other quasi-public institutions and with comparable governmental bodies that have

had pension plans for their employees for many years.

It will improve morale and efficiency and throughout the years may well pay for itself in this way.

Competent young men and women will be encouraged to enter the hospital's employ and to remain there if they under-

stand that older executives will retire at a given age and that they will have an opportunity for promotion.

Replacement of superannuated employees by younger, more aggressive, and more progressive men and women will keep operations abreast of growth both in medicine and in business management.

8. Labor Organization and Government Regulation of Labor Relations, *by Leo Wolman**

THE most striking features of the recent history of labor relations in the United States are the increasing intervention of government in labor relations and the growth of trade unionism. They are both novel features, peculiar to the period since 1933. Although powerfully affected by the war, these features reflected trends which were well under way when the war began.

In a sense the year 1933 sharply breaks a long trend in American employer-employee relations and the position of organized labor. Before that year, through good times and bad, the labor movement was a small minority movement. Try as it might it never succeeded, during the long history of our industrial development, in achieving a radical improvement in its position. Only during the years 1914-1920 was there a rapid upsurge in membership. But this was purely a war phenomenon, and the gains of the war were dissipated shortly after the war was over.

During many decades before 1933, if minor and occasional fluctuations are disregarded, aggregate union membership rarely exceeded 10 per cent of the country's total work force, and often fell below that figure. What this means is that our labor relations were dominantly nonunion. Roughly 90 per cent of American em-

ployees worked under conditions of individual bargaining, as against 10 per cent who worked under procedures of collective bargaining. Whatever may have been wrong with labor conditions during this period, it is clear from the record that unemployment was not then, as it has recently become, the first economic and political problem of the times.

In addition to being a minority movement, trade unionism during our long history was localized in a few industries—railroads, building, and coal mining. In these, about three-fourths of total union membership was concentrated. All other industries and occupations—manufacturing, trade, services, clerical workers, and professionals—were virtually nonunion, except for an occasional organization among highly skilled craftsmen, such as pattern or tool makers. But even these organizations were small and of limited jurisdiction.

This whole picture began to be entirely transformed in 1933, with the advent of a new federal administration and the swift adoption of policies radically different from any which had guided our labor re-

* Adapted from *First Institute on Hospital Personnel Management*, June 26-30, 1944 (Official Bulletin No. 224, American Hospital Association), pp. 113-117.

lations in the past. The new policy assumed a variety of forms. But it was made effective by a series of legislative enactments and a favorable administrative climate. The Federal Government, formally and informally, paved the way for the expansion of organized labor. A great structure of labor legislation, of which one statute (the Norris-LaGuardia Act, antedating the New Deal), was built, which not only removed the obstacles to union growth but, more important, afforded positive encouragement to unionization. The Norris-LaGuardia Act made it hard, if not impossible, for employers to obtain injunctions from the courts. The amended Railway Labor Act of 1934 prepared the way for the organization of all railway employees. The NIRA of 1933 was the first step in bringing labor relations and labor conditions under the surveillance and control of the Government. Finally the Wagner Act, the cornerstone of our labor policy, enacted in 1935 and validated by the Supreme Court in 1937, wrote into the law of the land stringent restrictions on the rights of employers, which, together with the way the law was administered, made large-scale union expansion inevitable.

At the same time unusual developments within the labor movement contributed further to increasing union membership. Dissatisfied with the organizing efforts of the AFL, a group of unions, led by John L. Lewis and Sidney Hillman, set up a new organization, the Committee for Industrial Organization, to hasten the organization of nonunion industries, particularly the mass-production industries. Almost immediately the Committee came into conflict with the AFL, which first suspended and later expelled the offending unions. They, in turn, responded by declaring their independence of the AFL and by

1937, a second federation of labor, the Congress of Industrial Organizations (CIO), was firmly launched. Boldly led and employing novel methods of organization, such as the sit-down strike, the CIO within a few years made deep inroads into the great nonunion industries and occupations of the country—steel, autos, machinery, textiles, and retail trade and professional and other services.

On top of all these changes came World War II. This war, like its predecessor, created conditions exceptionally favorable to unionism and collective bargaining. Extreme and general shortages of labor are conditions always favorable to organizing campaigns. Employers, working at capacity under public contract, are inclined to grant concessions and avoid conflict. The government, pressed for munitions and civilian products, is inclined to yield to popular mass pressure. Things, in fact, worked out this way and the unions added during the war several million members to their already expanded ranks.

The record of this movement is shown in the following tabulation. Since 1933 membership increased nearly four-fold. In 1943 it was more than twice its size in 1920. During the war alone more than three million members were added.

1914	2,687,000
1920	5,047,000
1929	3,442,000
1933	2,973,000
1939	7,869,000
1943	11,262,000

The absolute growth in membership was accompanied by a relative rise in the importance of labor unions. In the census year 1940, union members accounted for roughly one-fifth of the total of nonagricultural employees, as the following table

PERCENTAGE OF TRADE UNION ORGANIZATION AMONG EMPLOYEES IN THE UNITED STATES*

	1910	1920	1930	1940
Trade union membership†	2,052,402	4,795,100	3,073,200	8,047,431
Total number of employees	23,809,904	27,359,660	33,217,886	40,793,319
Percentage of employees organized	8.6	17.5	9.3	19.7
Total number of nonagricultural employees	20,709,232	24,731,391	30,246,719	38,680,418
Percentage of nonagricultural employees organized	9.9	19.4	10.2	20.8

* Figures for 1910, 1920, and 1930 from Leo Wolman, *Ebb and Flow in Trade Unionism*, National Bureau of Economic Research, Inc., 1936, p. 116.

† Represents membership in the United States, obtained by deducting the Canadian membership of U.S. unions from their total membership.

PERCENTAGE OF UNION ORGANIZATION IN MAJOR CATEGORIES OF INDUSTRY

Industry	1929	1933	1937	1942
<i>Manufactures</i>				
Number employed	10,203,000	7,036,000	10,273,000	14,563,000
Union membership	674,200	755,600	2,363,300	4,664,300
Percentage organized	6.6	10.7	23.0	32.0
<i>Mining</i>				
Number employed	1,064,000	714,000	949,000	921,000
Union membership	253,700	343,600	660,400	765,200
Percentage organized	23.8	48.1	69.6	83.1
<i>Construction</i>				
Number employed	1,806,000	755,000	1,148,000	1,885,000
Union membership	902,900	579,400	830,000	1,269,100
Percentage organized	50.0	76.7	72.3	67.3
<i>Transportation and Public Utilities</i>				
Number employed	3,878,000	2,647,000	3,102,000	3,444,000
Union membership	855,400	591,600	999,400	1,556,800
Percentage organized	22.1	22.3	32.2	45.2
<i>Trade and Services</i>				
Number employed	10,551,000	8,363,000	10,377,000	10,977,000
Union membership	287,300	257,400	461,700	957,300
Percentage organized	2.7	3.1	4.4	8.7
<i>Government</i>				
Number employed	3,087,000	3,156,000	3,593,000	5,177,000
Union membership	244,100	293,900	390,300	503,500
Percentage organized	7.9	9.3	10.9	9.7

shows, and by 1943 the percentage was probably higher.

The rise in union membership during the last decade has not been the same in all regions of the United States or in all industries and occupations. Everywhere unions have grown, but they have grown less in the South than in the North, East, and West. In factories, mines, transportation, and construction, union labor occupied by 1942 a dominant position, though it was still a minority in manufacturing.

In trade and services the growth has been rapid, but unions still include less than 10 per cent of all employees, and in government service membership has failed to keep pace with the expansion of government employment. The character of the changing position of organized labor in critical years beginning with 1929 is shown in the accompanying table.

In this period of union expansion, the American labor movement has not been without its internal difficulties. After a long spell of comparative internal peace and unity, in which the AFL was the dominant labor organization of the country, the movement became split into factions. Since 1933 the supremacy of the AFL has been challenged by the CIO. Both of these organizations are at war with the United Mine Workers, a union of 600,000 members whose jurisdiction now extends far beyond the coal industry. Challenging all of these organizations is a new and increasing crop of local, plant, and occupational independent unions,

which are so new, scattered, and numerous that no satisfactory record of them is now available. How important the major constituents of organized labor are and how their position has changed in recent years is shown in the next table.

The American labor movement will enter the postwar years with vastly increased membership and power. When the demobilization of the purely war industries is under way, the unions stand to lose many thousands of members in shipyards, airplane factories, and similar war industries. But, unless there is a profound change in public policy, organized labor will retain its strength in the basic industries of steel, automobiles, textiles, machinery, food production, mining, transportation and construction.

The policies of organized labor, therefore, will be determining factors in the future of industry, employment, and American economic prosperity. The problems of union policy have not been solved. They have merely been postponed by the war. After the war they are destined to arise in their most aggravated form. In that difficult period, union labor, industry, and the government will have to decide how safe it is to allow unions to restrict production, to keep wage rates at their inflated war levels, and to permit competing groups of unions, struggling for supremacy, to fight it out at the expense of the public, industry, and the rank and file of men and women who work.

AFFILIATIONS IN THE AMERICAN LABOR MOVEMENT

Year	Total membership	AFL	CIO	Independent
1920	5,047,000	4,093,000		954,800
1929	2,769,700	3,442,600		672,900
1939	7,869,200	3,841,200	3,266,400	761,600
1943	11,262,200	5,796,700	3,641,800	1,823,700

9. Collective Bargaining, *by Gerry Morse**

THIS discussion is limited to a consideration of the practical problems of the employer's representative in handling labor relations during the organizing campaign, the contract negotiation, and the operation under a company-union agreement. Illustrations and conclusions are drawn primarily from the actual experiences of a single manufacturing concern in its relationships with an industrial type union (rather than with craft unions).

Actual experience in the company over a period of many years is essential to a good job in collective bargaining on the employer's side. An expert negotiator or labor lawyer is in grave danger of reaching unsound and unworkable agreements if he does not know the employees, the various jobs in the plant, and all the shadings and interrelations of company policies, rules, and practices as an integral part of his own work experience. On the other hand, a long-service employee who has come up through the ranks and has the ability to express ideas clearly and simply can readily prepare himself for successful bargaining on his first contract.

Labor relations cover a wide field of knowledge of which collective bargaining is an important, specialized, and rapidly changing part. All too often the company representative is poorly informed. During contract negotiations in most cases involving questions of labor relations law or procedures before the various government agencies, the labor representatives are excellently prepared whereas many company representatives are not. There seems little excuse for a company representative to allow himself to be in the position of knowing less about the problem, and sometimes even less about the facts of his own case, than the labor representative knows.

For successful collective bargaining the employer representative requires consistent education and self-improvement, not only in the specific bargaining technique, but in maintaining complete and usable knowledge of all the factors involved in his case.

Appreciation of the history and background of industrial labor problems is particularly helpful in handling many specific collective bargaining situations. It is particularly important to have knowledge of the trends in labor relations both with regard to the demands that labor organizations make upon other companies and the rulings and attitudes of such agencies as the National Labor Relations Board and the National War Labor Board.

Another area of knowledge which is essential is that of personnel interests and needs within the company itself. The successful collective bargaining representative should know what is on the employee's mind and the trend of employee attitudes.

Collective bargaining really should be a bargaining process with the employer representative and the union representative both taking an active part in making demands and counter-proposals. There is no one best temperament, but the employer representative should be a real leader. He should reflect the ability and leadership in his company and exert his influence in behalf of sound personnel policy.

When a company has no organized labor group among its employees, it is necessary, nevertheless, to have some one responsible for following collective bar-

* Adapted from *First Institute on Hospital Personnel Management*, June 26-30, 1944 (Official Bulletin No. 224, American Hospital Association), pp. 118-121.

gaining developments in the community and the industry as a means of keeping informed on changes in personnel practice.

During the period of active company organization, the individual who will be responsible for negotiating a company-union agreement must be free to study the whole problem at first hand, advising management on its responsibilities under the National Labor Relations Act. During this period there is a great temptation to engage in counter-attacks upon the union organizing campaign. It seems best to avoid this temptation, however, because from the first steps of challenging factual information, the contest leads quickly into questions of policy and opinion which almost invariably leave the employer in a far less favorable position to make claims or promises than the union.

On the other hand during this period there is a tendency to ease up company policies for fear that an unfair labor practice may be claimed if the company follows its normal procedure in discharging or disciplining individual employees. Such a change is most dangerous because it has the effect of establishing the weaker policy by precedent and, if the union is eventually successful in organizing the group, it is almost impossible to write sound policies into the agreement.

In order that the union may actually be selected on the basis of the wishes of the majority of the employees, it is essential that the company's collective bargaining representative approach the question of determination of the collective bargaining agency very carefully. Many times the union representatives become so active during an organization campaign that the company representative begins to talk with them, meet them, and deal with them so frequently and so openly that many employees feel the union is already accepted

by the company so that they must join in order to be represented. Great care should be taken during this period to avoid discrimination against either those employees who do not favor the union or those employees who favor a union other than the one which is most active in its organization efforts at the moment.

For actual determination of whether or not the union represents a majority there are several methods available, although the best one by far seems to be a labor relations board election. By this method every employee in the plant has a chance to express his opinion at a given time and the result becomes more the action of the employee group than an agreement or arrangement on the part of the company.

Collective bargaining negotiations can be a very beneficial experience for the employee representatives if they are conducted properly. By exploring each point carefully and presenting the study, reasoning, and conclusions of the company in accepting or rejecting each item, employees are educated to the problems involved and to the attitude and ability of the company in meeting those problems. Many times a careful review of all the factors involved will result in employee representatives accepting the point of view of the company rather than of the outside union representative. On the other hand very arbitrary collective bargaining tactics are interpreted by the employees to be a criticism or attack upon them by the company.

In order to make the educational approach really effective, however, it is necessary for the company representative to be willing to learn, as well as to teach, during the bargaining process. To gain the advantages of getting his points across he must be willing to accept and work out real problems which the employee group presents to him when those problems

logically and reasonably require a change in the company practice. Although such an attitude may sound dangerous to a company representative who has been subjected to heavy union pressure, in the long run collective bargaining may be most effective when it is on an open, give-and-take basis. If possible it is best for the company representative to handle the negotiations himself with the help of other members of management who are expert in the particular field under discussion.

If outside legal counsel is used during negotiations the personality of the individual is most important so that he does not upset the atmosphere which the company representative is trying to create. Even if no counsel is present in the negotiations one should always be consulted in writing the final draft of the agreement to make certain that it states clearly the exact conclusions reached.

The written collective bargaining agreement may mean much or little depending on how carefully operations are continued under it. Many agreements which look perfectly sound in written form do not work out effectively because either the company or the union group takes advantage in the grievance machinery or other operational procedures to interpret the various elements in a very one-sided fashion, with the result that the agreement works in one direction but not in the other.

If business management really has the leadership claimed, then the responsibility

rests upon the company representative to see that operations under the agreement develop consistently in the direction of fairer, sounder personnel practices. The company representative who allows himself to be forced into a position where he must agree to unsound labor demands is doing a real dis-service to his company and its employees. It is up to him to see that every item to which he agrees in his company-union contract is based upon sound, long-range industrial relations principles. He requires the courage, the stamina, and the sales ability to negotiate that type of an agreement because it represents the best hope for continuing employment of the workers and advancement of the whole organization.

Growing interest among professional employees in unionization indicates that hospitals and other similar organizations may soon be faced with the same problems in collective bargaining that are now so prevalent in industry. The recent growth of supervisory unions in this country and unions for professional engineers and scientific personnel in Canada indicate that the field is continuing to expand. It will be equally important to have a thoroughly capable and understanding representative to handle collective bargaining procedures with these groups if the extension of the collective bargaining practice is to be absorbed by such companies and organizations in a sound and intelligent way.

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CHAPTER XXIX. PUBLIC RELATIONS

1. True Bases of Public Relations; Good Manners, Good Morals, Good Taste, *by Basil C. MacLean, M.D.**

TO many of us the terms "public relations" and "public education" suggest something mystic or occult, but these rough observations are concerned with them as one subject. It will be obvious, of course, that they are only some rambling thoughts of a rookie on the day-to-day relationships of a hospital to the public it should serve.

Voluntary hospitals are probably less inept in dealing with the public than they were a generation ago, but there are still many ways in which they can improve their relationships by methods which are within the bounds of ordinary intelligence and common sense.

It is customary to emphasize that the primary purpose of the hospital is to care properly for the patient, but there is abundant evidence that we forget this fact. There comes a time in the life of any hospital when a decision must be made as to whether it is an agency of public health and public welfare or just a convenient place for private enterprise to flourish. A hospital should be more than a workshop for individualists.

Dr. Hugh Cabot expressed it crisply in a recent article when he stated: "Since the hospital has become the refuge of the whole population, when faced with complicated medical conditions, one might venture the suggestion that, as the center of gravity has shifted, the management will have to pay more attention to the rightful demands of the patient and less to the idiosyncrasies of the visiting staff."

There is no need to mention here the courtesy and kindness which a patient

should receive from admission to discharge in a hospital. The public daily becomes better informed and more sophisticated regarding medical and hospital care. There is good wit in Fred Allen's remark, "People are funnier than anything," but there is more wisdom in the old French proverb, "Everybody knows better than anybody."

What the man in the street thinks of us is important, therefore, and I should like to acknowledge again that hospital insurance not only is providing a more stable financial or operating basis but also has done more than anything else to present the hospital favorably to the public. In return we should publicize to our patients the facilities of Blue Cross Plans, of visiting nurse associations and of other similar agencies in the health field.

W. H. Vanderbilt was reported many years ago to have remarked inadvertently, "The public be damned." Mr. Statler is credited with coining the promotion slogan, "The customer is always right." One statement is almost as stupid as the other, but between the two is a field for fairness in dealing with patients. Public relations should be nurtured by private honesty.

Let me give an example. In a northern city that has a sales tax, not applicable to hospital charges, a hospital charged, collected, and kept the tax. If a patient protested, the tax was refunded. There are degrees of dishonesty. Another hospital

* Adapted from *Mod. Hosp.* 63:63-64, Dec. 1944.

which boasted of its private service to patients with low incomes offered rooms which were priced modestly but nursing was charged as an extra and an extra charge was made for butter when served with toast and for cream when served with coffee.

You remember the story of the hospital where the billheads carried the biblical quotation, "And now abideth faith, hope, charity—these three; but the greatest of these is charity." The first charge on one patient's bill was observed to be, "Aspirin, 10 grains—25 cents."

Our interest in this subject shows that we are not as smug, self-sufficient, or self-satisfied as we have been accused, but we are still suffering a bit from a cash register complex which is neither sensible nor subtle.

We can learn much from commercial service organizations about successful methods of dealing with the public. Some hospitals now give each patient a booklet or pamphlet, explaining the various facilities and administrative procedures of the hospitals, to assist him to orient himself to hospital life. During war time an insert folder may call attention to the unfortunate but inevitable curtailment of some of the niceties of hospital care.

For many years I have found the use of a "patient's comment card" valuable in obtaining early the patient's comments, favorable or otherwise. I commend to you the use of a bill form on the reverse of which appears a graphic illustration of how the patient's dollar is spent and particularly that portion which corresponds to services rendered by a hotel. These are only illustrations of methods that can be used.

Individually or through associations, hospitals could benefit by the use of a questionnaire similar to that of the airlines.

Do we really know what our patients prefer when we design so-called semi-private accommodations? Do we know whether they prefer multiple charges or inclusive rates?

Since I stress so strongly the need to direct our attention in the field of public relations to the care of the patient within our walls, I touch only briefly that side of the subject which deals with the general public. Fortunately, few hospitals attempt a Hollywood press agent approach or measure their success in public relations by the newspaper lineage they receive.

Hospital annual reports improve in form and content, but there are still too many that resemble an eighteenth century almanac, printed in 6 point type and read only to the extent that members of the staff or others listed look to see if their names are correctly spelled. I suggest we all join the SAMAR—the Society for the Abolition of Medieval Annual Reports.

The annual report may be only a document of record of intake and output—of patients and pocketbooks. If so, it serves a historical purpose in limited circulation. When it is used as a channel for public appeal, it should not appear in bonnet and hoop skirts.

In passing, may I suggest that one of the "don't's" of public relations is the practice, too prevalent, of permitting hospital ambulances to disregard speed limits and red lights. Loud sirens and clanging bells irritate more than they impress people and more lives are endangered than are saved by such spectacular stupidity.

In our dealings with Blue Cross Plans and with other voluntary or public agencies, we are likely to forget that we are dealing with the representatives of the public. More than printer's ink and pretty pictures are necessary to offset a selfish, unreasonable or mercenary attitude of a

hospital toward other agencies of community health and welfare. For example, the hospital that refuses to participate in the EMIC program for the maternity care of wives of enlisted men in the lowest four grades will some day have to answer some questions from the "relations" of one important section of the public it serves.

And now that I have dared to discuss as a tyro this intricate subject, I should like to say that often the hospital with the best public relations is the one where the least is heard about the subject. In Alden B. Mills' excellent book, he sums it up as a matter of good manners, good morals and good taste.

2. Service Is the Cornerstone, by Alden B. Mills*

SERVICE is or should be the backbone around which the public relations efforts of any hospital are built. Without such a backbone, public relations work may "ride off furiously in all directions" or, to change the metaphor, may have no more form or shape than a jellyfish.

Just what is a "service program"? Does every hospital have one? If not, how does a hospital acquire such an important asset? Can you buy one by mail?

A service program is a concept or plan for rendering service to the community. But it is more than that; it is also a progressive program for improving that service until, insofar as possible, all of the needs of the community are met.

Every hospital must have some kind of service program, even though it is only in the mind of the administrator, an influential physician, or a powerful board member. But it would be far better if it were reduced to writing, adequately discussed by the administrative staff, the medical staff, and the trustees, and then formally adopted. That would not mean that changes could not and should not be made to keep abreast of new developments in the hospital and medical fields.

The first consideration, of course, is to be sure that the hospital is doing the best possible job for those patients it now is prepared to accept. This means a careful

self-appraisal of all aspects of the hospital's service or, sometimes better still, a complete appraisal by a competent hospital consultant on the basis of a survey. There are many such consultants in the country and the money spent for their surveys is often the best investment a hospital makes.

The hospital may, however, wish to make its own survey. There are certain decided advantages to this plan since it draws in many people in the organization and makes them conscious of the hospital's aims, objectives, and shortcomings (if any). What subjects should the survey cover?

It will deal first, of course, with the service rendered by the visiting and resident staff. Does the staff include the best physicians that are available in the community? Have standards been set up for appointment to the staff and for promotion in the staff? Are all of the standards of the American College of Surgeons met and exceeded? Are the trustees and administrative officers vitally interested in the quality of the service rendered by the medical staff? Are all of the important specialties represented on the staff, at least by consultants who can be called when needed?

* Adapted from *Mod. Hosp.* 63:43-45, Dec. 1944.

Similar searching questions should be asked about nursing service, food service, admitting and discharge service, medical social service, hostess service, religious ministrations, bibliotherapy, ambulance service, emergency care, pharmacy, clinical laboratory, radiology, anesthesia, gas therapy, physical therapy, fever therapy, electrocardiography, parenteral therapy, blood, plasma and serum service, occupational therapy, housekeeping, engineering, and every other service of the hospital.

In making this investigation, the hospital staff should ask not only "what do we do and how well do we do it?" but also "what don't we do that other hospitals have found worth while?" In every instance the inquiry should be especially concerned with the welfare of the patient. That is the cornerstone of public relations.

During the course of the survey, the hospital should determine how well its present buildings and equipment meet present needs. There are thousands of hospitals that are still using old buildings that are uneconomic to maintain and inefficient to operate. Sometimes the lack of proper planning and inadequate equipment actually interfere with the delivery of good care to patients. More often they merely serve to increase cost, delay service, and create annoyance.

Does the hospital really serve all groups in the community? Or does it exclude Negroes or other racial groups, alcoholics, drug addicts, unmarried mothers, indigents, or any other groups needing care? In approaching these touchy subjects the hospital must remember that the true function of the voluntary hospital is to serve all who need its service.

When the hospital is satisfied that it knows all it can about present services, where the "sore spots" or inadequacies

are and how these can be corrected, then it is time to look ahead to the expansion of the institution. Such expansion should be based on the needs of the public that are not now being met.

What are those needs? The following list of some major items might well be considered by a general hospital. Special hospitals might have a somewhat different list.

Care of Chronic Disease

Most of our cities, counties, and states have done almost nothing toward providing adequate hospital facilities for persons with long continued illnesses. We have some "poor farms" that sometimes will take those who are sick; we have some private homes for the aged that may or may not keep them when they become sick; we have some private nursing homes, and a few—very few—actual chronic disease hospitals or units in general hospitals.

With the development of social security programs, improved economic conditions, and an increasing willingness of state and local governments to meet all or a part of the cost of care for patients with chronic illness, there is growing belief among general hospitals that they can find means of financing the cost of operating chronic disease units.

Because of the great paucity of hospital facilities for chronic disease, it is almost academic to discuss the ratio of beds needed to population. Some years ago the Committee on Administrative Practice of the American Public Health Association set the figure at two beds per thousand population.

Before any community begins to approach such a figure, there doubtless will be other studies made that will corroborate or correct this estimate.

Convalescent Care

Greatly increased facilities for convalescent care are needed in this country. Adequate convalescent hospitals can make an important contribution to the improvement of medical service and to lowering its cost. Such institutions might be established independently but there are many advantages in having them as units or adjuncts of general hospitals.

While they should be in attractive surroundings this does not mean that they should be far off in the country where it will be difficult for physicians, and also for relatives and friends, to visit them. It is better, if possible, to bring trees, grass, sunlight, and quiet to the hospital by adequate parks around it than to make everyone concerned travel long distances. Eventually, all city hospitals should be located in park-like surroundings.

How much convalescent care do we need? The same committee of the American Public Health Association estimated the need at 0.75 bed per 1,000 population.

Like the estimate for chronic disease, this may be too high or too low. Such errors are immaterial when we have fewer than 10,000 "convalescent and rest" beds in the American Medical Association register for the entire United States.

Psychiatric Care

The American Hospital Association has been on record for several years in favor of adequate psychiatric departments in general hospitals. When one studies the surveys that have been made of large state nervous and mental disease hospitals, he realizes that conditions in many of them are a disgrace to this nation. The recent survey in New York State is one evidence.

The official position of the American Hospital Association was given in 1940 in

a manual entitled *The Care of the Psychiatric Patient in General Hospitals*. The following paragraphs are quoted from this manual, which should be read by every hospital trustee.

"At the moment there is so much interest and intensive study given to organic disease in our general hospitals that the total picture of illness is seldom given adequate consideration. In the present-day organization of our best hospitals, where teaching and research are combined with the care of patients, it is no one's business to give time or thought to the many psychogenic and personality aspects of illness; hence they go undiscovered or uncovered.

"Until more of the technic and point of view of the psychiatrist pervades the many services of the general hospital, this situation will continue to be, for the most part, lip service to psychiatry of which there is now quite a lot.

"Instead of being merely a specialty, psychiatry must be looked upon as a fundamental of general medical practice, assuming a place alongside of anatomy, physiology, pathology and therapy on the one hand and representing a major clinical division of medicine on the other.

"Psychiatry is that phase of medicine which deals with the pathology and therapy of the person. Behavior reactions on the part of a person are not necessarily wholly in the nature of ideas, emotions or moods, but often include important somatic, physiological and even organic aspects which can not be understood in terms of a purely physical approach. . . .

"No doubt exists at the present time as to the urgent need for the provision in general hospitals of early treatment facilities for psychiatric patients. In every community, in every county and state in the nation there are hundreds or thousands of

these individuals seeking care, ready and willing to pay for it and not finding hospital and medical facilities provided! . . .

"Billings has found that one out of every 13 admissions to the medical wards of the general hospital will present personality disorders which are the explanation of the patient's disabilities. This would mean that every general hospital of 150 beds or more could support a psychiatric ward of at least 15 beds. . . . The number of beds now available for cases of this kind is in no way adequate. There are large areas of the country in which an individual with even a mild psychiatric illness is obliged to travel hundreds of miles in order to find a hospital open to him."

The manual does not boldly say so but one of the great advantages would be the removal of a blot upon the history of the American people resulting from the inhuman, unjust, and utterly inadequate care that is so often provided in politically run state mental hospitals. Not all such hospitals are of this character of course. Enough are to constitute a disgrace to the world's richest nation.

Management of Tuberculosis

To a lesser extent, the care of patients with tuberculosis would benefit if a special section for them were provided in every general hospital of 150 or more beds.

In another manual on this subject, entitled *The Management of Tuberculosis in General Hospitals*, the A.H.A. stated its formal position as follows:

"The many reasons in favor of admitting tuberculous patients to the general hospital can be classified under several general headings—convenience, necessity, education, public health and economy. Probably more important than any are the surveys

which have shown that tuberculosis specialists and sanatorium officials almost unanimously favor the allocation of beds for tuberculous patients in general hospitals and that hospital isolation and care have proved effective in many modern wards and sanatorium-hospital relationships."

Physicians' Offices

If a hospital is to become a true health center for its community, it should provide good opportunities for the physicians on its staff to see private ambulatory patients in or adjacent to the hospital. Some hospitals have built large office buildings for physicians that are connected on several floors with the hospital itself. Others have provided space for staff physicians to see patients but have not tied this up to any particular physician. Doubtless other possibilities can be developed.

The hospital is the logical place for the medical staff to center its work, thus conserving its time, making full and efficient use of the hospital adjunct facilities, and dramatizing in the public mind the hospital as the health (as well as the sickness) center for the community.

Public Health Activities

Leaders in hospital thought are now convinced that the distinguished hospital of the future will be the one that takes a prominent role in public health activities. There are scores of ways in which the hospital can cooperate in the public health work of the community.

The most dramatic method of cooperation is to have the public health department (or one of its branches or clinics) actually housed in the hospital plant and using in full the facilities of the hospital. In a community where there are many

hospitals, such an arrangement may not always be feasible.

Whatever is possible in the way of public health activity should be incorporated in the hospital. Such an arrangement has tremendous public relations appeal. It lifts hospitals out of the "hotel-keeping" and "money-grubbing" field and puts them in the field of essential social agencies.

Regional Coordination

The need for coordinating the services of hospitals on a regional basis is becoming increasingly apparent. Some important work along this line has been done by the Bingham Associates in Maine and the Kellogg Foundation in Michigan. Other areas are making plans for integration now.

Integration programs usually involve the classification of hospitals into three groups: (a) the central teaching institution, preferably affiliated with a medical school serving the entire area of the region; (b) the intermediate hospital of from 40 to 200 beds serving a particular subdivision of the whole region, and (c) the "outpost" hospitals or health centers of from 10 to 25 beds which serve the small local areas.

Each hospital should attempt to evaluate its own proper place in such a pro-

gram and begin making arrangements to fill it.

When the service program has been outlined, the hospital authorities should call in their architect and begin to determine the physical plant that will be needed to house such services. Some things may be done within present buildings; others will require new construction.

The final step is to lay out a tentative time schedule within which it is hoped that the needed improvements can be achieved. The time schedule may run for five, ten, or twenty-five years. Beyond the first five years, it may be tentative and depend upon the extent to which the public will provide the funds.

At each step in this whole program, the hospital can obtain excellent publicity by letting the public know what is being studied and what conclusions have been reached and by offering the public an opportunity to check and evaluate the program as it develops step by step. Printed matter, public meetings, advisory committees, and many other devices may be used to obtain the public's interest, support, and approval for the program.

When this has been done, the hospital is in a strong position to say to the public, "This is your program; you helped to formulate it; now give us funds and support to achieve it."

3. Public Relations from the Doctor's Point of View, *by Walter G. Phippen, M.D.**

A HOSPITAL is made up of three equally important parts—the trustees, the administration, and the medical staff. No one or two of these can function without the third. The relationship among these groups should be cordial and entirely cooperative. All these groups have a definite contact with the public, but of the

three the doctor probably has the greatest opportunity as he comes in daily contact with innumerable patients and their families and friends both within and without the hospital.

What an opportunity he has to interpret

* Adapted from *Mod. Hosp.* 62:84-86, May 1944.

the work, the ambitions, and the needs of his institution! Yet many doctors are diffident about doing this. In fact, they are often criticized by trustees and directors for their seeming lack of interest.

In most instances their diffidence does not arise from lack of interest. It is rather lack of thoughtfulness and perhaps a little lack of stimulation. Remember that the doctor's first thought is the medical care of the patient. That transcends all others.

What can the trustees and administration do to make further use of this potential power? Perhaps most important is to take the staff, as much as possible, into their confidence. This does not mean that every act of the board of trustees should be submitted to the staff or that a member of the active staff should sit on the board. This is now generally recognized as a poor principle and likely to lead to difficulties.

A definite liaison should be set up between the board and the staff, through an intermediate body—an executive committee, staff council, or what you will—consisting of elected staff members and the director of the hospital. This group should not be too large for members to get together quickly but large enough to be really representative. It should hold frequent meetings and enjoy free and frank discussion.

At such meetings criticisms by patients, doctors, the nursing force, or other departments can be harmoniously discussed, to the benefit of all. Here, also, new policies relating to the admittance of patients, use of the outpatient department, new clinics, increased prices for rooms, and other services can be interpreted by the director.

Intern problems and the qualifications of new staff appointments also come within the scope of this group. Frank ex-

change of ideas and opinions in these meetings will prevent many unpleasant episodes that weaken the esprit de corps of a hospital and, thus, its appeal to the public.

An occasional informal meeting of the trustees and the staff is extremely helpful. Only a few speeches should be made and the rest of the time should be given over to a discussion of problems. The staff members will be stimulated and some of this enthusiasm will, in turn, be transmitted to the public.

A question the business man usually asks is why it costs so much money to run a hospital. Accustomed to dealing in profit he can't understand dealing in service. Trustees and directors can explain the business details, show him where the money goes, but can they explain as well as a doctor why the money goes?

We can say, for instance, that we need more room for the laboratory because, whereas twenty years ago one room for one technician was quite sufficient, now we must find room for a full-time pathologist, a resident in pathology, a secretary, and perhaps six or eight technicians. The public will probably answer: "That's a very good reason, but why the increased personnel?"

The doctor can help there by explaining that the laboratory has become more and more necessary because of the tremendous increase in scientific medical knowledge in a short period. Not so many years ago we would perform what we thought was a pretty good technical operation but the patient died and we didn't understand why. Now we know that a proper understanding of the chemistry of the body and of methods of making up deficiencies in any of its elements has saved many lives. But the estimation of the levels of chlo-

rides, proteins, and nitrogen requires many careful laboratory procedures. This requires costly equipment and increased personnel.

Radio broadcasts constitute a valuable form of publicity and one in which the doctors can easily cooperate. In Salem, Mass., we have had this opportunity ever since last fall through the courtesy of Station WESX. The broadcast is made easily from the conference room in the hospital at 10:30 every Tuesday morning. The assistant director arranges the panel and sees that the script is in order. All departments are invited to take part, including the medical staff and interns.

Up to the present time we have made about forty broadcasts and many members of the staff have willingly participated. Once a month the period is devoted to a health talk. In view of the large number of commendatory letters received, we heartily recommend radio broadcasting as a publicity measure in which the medical staff can give effective assistance.

Another way in which the doctor can help to maintain good feeling in the community toward the hospital is to give adequate and careful instruction to the patient on discharge as to his future course, how much activity he should enjoy, what his diet should be, and when he should go to work. Often patients are discharged hurriedly without adequate advice so that they feel all at sea and much of the good work accomplished in the hospital goes for naught and the hospital gets the blame.

If the patient was referred by a physician not on the staff, a letter or telephone call referring the patient back will help immensely. If he should return to the outpatient clinic the proper liaison between the house and the clinic staffs accomplishes the same thing. The proper use by the staff of a well-organized so-

cial service department is most important.

Before the war public lectures on Sunday afternoon offered an excellent opportunity for staff members to present the work of the hospital. These should be given at the hospital. If they are given in a public hall they may command a larger audience but the connection with the hospital is largely lost. Many hospitals have conducted such courses and, in general, they have been well patronized.

Another important contact with the public is through the hospital aid societies, or whatever they may be called. These women's auxiliary groups usually have regular meetings and it is not difficult to make a place for a member of the staff on the program to explain some activity of the hospital. At Salem Hospital we are doing some experimental, and perhaps somewhat original, work on the RH factor and our pathologist was able to give the auxiliary an interesting lecture on the subject. Of course, all of the members didn't understand everything that was discussed but they carried enough away to tell their friends something about it. This helps to drive home the idea that the hospital is not just a receptacle for the sick but that it is a really scientific institution.

Red Cross nurse's aides constitute a potential power for good will for the hospital. The staff doctor comes in daily contact with many of them. His courtesy, consideration, and cheerful recognition will do much to make them feel that they are a necessary and useful part of the hospital and will thereby enhance its prestige.

A hospital is an integral part of its community. It is as necessary as the police or fire department and the community should recognize its responsibility for its support. On the other hand, the hospital should recognize its responsibility to the community, which is to furnish the high-

est quality of medical service possible within the limits of its resources and to be ever pushing forward to greater achievement. This presupposes an efficiently organized medical staff with proper laboratory and x-ray facilities, clinical records, and the proper use of case histories in clinical conferences.

It is not so generally recognized, by the public at least, that the better and more efficient these facilities are, the greater the incentive for young medical graduates to settle in the community. A hospital appointment is becoming more and more necessary and graduates look the hospital situation over carefully before deciding where to start their practice. One or two full-time men, such as a radiologist, pathologist, or an anesthetist, form a good nucleus for such an organization.

All hospitals, however, cannot maintain such an organization because some are too small and have too little clinical material. Hospitals of less than 100 beds have this difficulty, yet they serve a useful purpose in their communities. They cannot be expected to provide equipment for elaborate surgical or medical procedures or furnish adequate laboratory and x-ray facilities. It is often possible for these small hospitals to cooperate with some larger and better equipped institution to the mutual advantage of both.

Periodic laboratory and x-ray service can be furnished by the large institution. Complicated medical or surgical cases can be transferred from the small hospital without prejudice if its staff is given appropriate appointments at the large hospital.

A moderately large publicity committee recruited from outside the personnel of the hospital, meeting at regular intervals, is an excellent idea. This committee should invite one or two of the staff members to attend its meetings and explain the

work of the various departments. Such talks will enable the committee to interpret the work of the hospital more intelligently.

Finally, in considering the doctors' role in public relations it is important to bear in mind the sacred doctor-patient relationship. This relationship properly used is a great power for good but improperly used may be a great power for evil.

If a doctor thoughtlessly agrees with his patient in some trivial criticism, without knowing the true facts, an unpleasant feeling may result that will take years to eradicate. Whereas, if he takes the trouble to get the details he may be able to explain away the difficulty in five minutes. One may say that this represents the personal equation of the doctor and that not much can be done about it. I disagree. A great deal can be done about it.

In the first place a good staff organization helps a lot. A comfortable chat with the chief of staff may be all that is necessary if the time and place are well chosen. The middle of a noisy corridor is not the right place, neither is the surgeon's room in the operating building. A quiet library is better. Sometimes a more formal approach in the director's office may be advisable.

Staff members must be made to feel that every criticism will receive polite and thoughtful reception. The doctor must leave the director's office with the feeling that everything possible will be done promptly to clear up the situation.

To sum up, if the hospital will enlist the confidence of the medical staff, understand the various peculiarities of its members, be patient with their idiosyncrasies, and lend them ever a sympathetic ear, it will have their hearty cooperation in all undertakings.

4. Hospitals and the Press, by *David Dietz**

THERE is as much difference between the newspaper of today and the newspaper of twenty-five years ago as there is between the hospital of today and the hospital of a quarter of a century ago. This is a fact that in all probability has not been fully appreciated by many busy hospital executives who have been so occupied installing new x-ray machines, new biochemical laboratories, and new clinics, that they have had no time left in which to bring their public relations program up to date.

The other day at a medical meeting I heard a successful and highly respected physician say that he had been afraid of newspaper reporters all his life. I hope there is no one within the sound of my voice who is afraid of newspapers or newspaper reporters. For the plain and simple truth is that the newspaper and its reporters can be your best friends. They will be if you give them the opportunity; if, in other words, you will be as modern about your public relations program as you are about your x-ray equipment.

In the twenty-eight years that I have been in the newspaper profession, I have seen many changes. Today we get much of our war news by radio. Photographs come over the telephone wires and reporters frequently use airplanes to cover important assignments. But the biggest change I have seen in those twenty-eight years has not been the mere adoption of advanced mechanical techniques. It has been a change in the fundamental spirit of the average newspaper. Today's newspaper regards itself as an integral part of the community in which it is published. In this respect its attitude is analogous to that of the hospital. It feels that it has definite responsibilities to that community. Sensational, irresponsible journalism is today the rare exception. The great ma-

jority of newspaper publishers understand that their own success is bound up with the success and welfare of the community. That is why I say that the newspaper of your community will be your best friend if you will permit it to do so.

Your first task is to see to it that a basis of mutual understanding is developed between your institution and the newspapers of your city. If I were addressing an audience of newspaper publishers I would tell them that it was their task. The fact is that it makes very little difference how the matter is initiated for in the end it must be a cooperative enterprise with each party understanding the needs, the difficulties, and the objectives of the other.

Such a basis of understanding exists in my own home town of Cleveland, Ohio, between the newspapers, the Cleveland Hospital Council, the Cleveland Academy of Medicine, and the Cleveland Hospital Service Association. For that reason I shall take the liberty of referring to the Cleveland situation in the course of these remarks.

There are three main areas in which the interests and activities of newspapers come into contact with those of hospitals. I have chosen, somewhat arbitrarily, to name the field of general news, the field of science news, and the field of community enterprise. I shall try to explain what I mean by these names.

By general news I mean news about what has happened to people. The hospital gets into the picture because the people involved were brought into the hospital immediately after it happened. This category includes all so-called police cases—traffic accidents, other accidents, stabbings, shootings, poisonings, and the like. It also includes news about private patients who

* Adapted from *Hospitals* 16:28-30, Nov. 1942.

are of public interest because of the unusual nature of what has happened to them or because they are people of such importance in the community that their names make news.

Under the heading of science news I include items of scientific, medical, or technical importance. This would range all the way from the installation of a new piece of equipment to the performance of a new type of operation.

By the field of community enterprise I mean the area in which the newspaper and the hospital are acting together for the benefit of the community. This would include endowment campaigns, building fund campaigns, the creation or extension of a hospital service plan, welfare fund drives, and, particularly at the present moment, the organization of civilian defense units, first-aid units, and the accomplishment of those other purposes which contribute to the successful waging of the war.

The first of these fields, the field of general news, will be regarded by the average hospital administrator as a headache. I think I understand why this is so. But I think the wise administrator will see why it is necessary to deal adequately with this field.

The function of the newspaper, as its name indicates, is primarily that of printing news. When news originates in a hospital, it is still the function of the newspaper to get and print that news. How difficult it is for the newspaper to get that news will color all other relationships between the hospital and the newspaper. Moreover, the hospital administrator who organizes a system for giving that news to the newspaper will find that by eliminating friction, he has also eliminated headaches.

The situation was dealt with successfully in Cleveland through the action of

a joint committee of the Cleveland Hospital Council and the Cleveland Academy of Medicine which met with responsible newspaper executives and as a result drew up a code known as the "procedure to be followed by the hospitals in making available information relative to patients." This was adopted on June 18, 1935.

Last week I asked Norman Shaw, managing editor of *The Cleveland Press*, how successfully this code has worked. He replied that the best testimony to the success of the code has been the fact that there has never been the necessity for any conference or meeting upon the subject since the code was drawn up in 1935.

At the time when the joint committee was formed in 1935 there was some friction and a situation had developed which needed to be dealt with. There was a feeling on the part of the hospitals that the police reporters were unnecessarily insistent and sometimes rude and that they regarded it as more important for them to be given the information they wanted than for the surgeons in the emergency room to attend to the victims. On the other hand, the reporters felt that they were being given what is sometimes termed the "run-around" and that there was usually a policeman who came into the emergency room with the case and that since there was nothing else for him to do at the moment, he, at least, might talk on the telephone.

I think the 1935 code has worked so successfully all these years in Cleveland for two reasons. First, it established the principle that in each hospital there would be one person responsible for giving out information to the reporters. Since, in practice, one person cannot be available twenty-four hours a day, a succession of persons was named in each hospital with the understanding that the telephone operator would call them in a designated

order. It was also agreed that reporters would be allowed to talk on the telephone to the surgeon or policeman in the emergency room when this was possible.

The second reason is that the code set down clearly the exact information which the hospital might give the reporter in police cases as to names and addresses, other personal details, nature of the accident, nature of the injuries, and so on.

In dealing with patients other than police cases, it was agreed that the hospital would give out information if the patient was willing. It was further agreed that the hospital would in any case give the newspaper the name of the attending physician and refer it to him for further information. The newspaper agreed not to use the physician's name without permission. However, this made it possible in any case for the newspaperman to discuss the matter of what, if anything, was to be published with the attending physician.

It was specifically understood that under this agreement the hospital would not lie to a newspaper about the presence of a patient in it. Where there had been orders against giving out information, the hospital would merely say to the reporter that it could give him no information, referring him at the same time to the attending physician.

The second field of which I spoke was that of science news. This is the field in which I have specialized for the past twenty years. I think everyone here is well aware of the changes that have taken place in this field. There was a day when the newspapers had no interest in the reporting of science. In those days a scientific convention was regarded as an assignment for the staff humorist who commented either upon the beards worn by the assembled savants or the polysyllabic

titles of their addresses. Scientists upon their part viewed the newspapers only with hostility and disdain.

That day is now past and such organizations as the American Association for the Advancement of Science, the National Academy of Sciences, the American Medical Association, the American College of Surgeons, and others cooperate willingly with the science writers of the metropolitan press. These writers, in their turn, have banded together into the National Association of Science Writers and set high professional standards for themselves and their colleagues.

Hospitals, in cooperation with their medical and surgical staffs, can furnish these accredited writers with scientific news that will do much to enlighten and educate the public, give people a new insight into the operation of their hospitals and a new appreciation of their importance, and otherwise improve relations between the public and the hospitals.

As an example let me relate an incident that took place in Cleveland last summer. There was a minor railroad accident in which a switch engine overturned, pinning the fireman in the cab. Members of the city police and fire departments worked with acetylene torches to cut away the tangled wreckage that held the fireman a prisoner in the cab. All this was duly reported of course in the newspapers. But I was able to write a far more interesting account the next day as a result of a telephone call from the surgical chief of the City Hospital.

He told me how a team of surgical residents and interns had been rushed to the scene of the accident, how one young intern had crawled down into the cab beside the fireman, administering morphine and initiating a transfusion of blood plasma. Had it not been for this, the on-

set of shock would have acquired an amputation long before the man could be freed.

I was able to report that this team was one of a number organized for instant action in the event of enemy air raids and that it had functioned in this instance just as it would in a war emergency. Thus the people of Cleveland were given a dramatic portrayal of the role which the hospitals of the city played in their lives.

Events are not always so dramatic but you will find that the science writers appreciate the importance of medical news and are ready at all times to present a sympathetic and understanding view of your achievements.

In cities where the local newspaper does not have a science writer, I would suggest that the hospital persuade the newspaper to assign a reporter interested in such matters to report the scientific news of the hospital. If the man is interested and the hospital staff will cooperate with him he can quickly be trained to do a very creditable job.

If satisfactory relationships have been established in the two fields already mentioned, there should be no difficulty whatever in getting complete editorial support from the newspapers in the field of community enterprise, in all those activities such as endowment fund campaigns and the like which are for the benefit of the public.

In this connection I would call your

attention to a fact which I think you in turn might relay to the attention of your local newspapers. The amazing growth of hospital service plans has given people everywhere a new and more personal interest in hospitals. In Cleveland there are 635,000 members in the Cleveland Hospital Service Association. These people are making monthly payments to provide themselves with hospital care in the event of its necessity. This means that they have a new appreciation of hospitals and are thinking in new terms.

The growth of the hospital service associations is, of course, positive proof of the new role of the hospital in the era of scientific medicine. The hospital is no longer the place to send a patient in desperation as in the days of our grandfathers, rather it is the place to send him for thorough diagnosis, for early treatment, for necessary surgery. Patients understand this and no longer view the hospital with the fear that was common a few generations ago.

New and difficult problems are being created for the hospitals by the war. These need to be dealt with for the national safety and require the active cooperation of the whole community. Problems of equal difficulty will present themselves in the days of postwar readjustment. Wise hospital administrators and wise newspaper editors will work together to solve these problems for the benefit of the whole nation.

5. It's a Full-time Job, by *Ellen Petts Marcossou**

THE office of public relations at Memorial Hospital, New York City, works directly under the committee on public relations of the board of managers of the hospital. The liaison between the board of managers and my office is the chairman of the com-

mittee on public relations of the board. He is a well-known retired international journalist who, fortunately for me, is able to devote considerable time to our office.

* Adapted from *Mod. Hosp.* 63:54-56, Dec. 1944.

His advice, contacts and cooperation are invaluable.

Equally important is my contact with the director of the hospital. His office is just a few doors from mine on the same floor and I consult with him daily. No publicity goes out of our office until he has checked it for accuracy. His okay gives the material authority.⁶

Our public relations office is concerned only with lay material. Scientific publications of the hospital come under a scientific publications committee. Often, however, when I know that a paper on a scientific subject, clinical or research, that might be of interest to the general public is about to be published in a scientific journal, I notify various science writers of the news press to be on the lookout for it.

Science columns are widely read by the lay public. They are educational and give the community an opportunity to see what its hospital is accomplishing in the way of new methods of treatment, research developments and scientific observations.

With a few exceptions the science writers treat us well in this phase of our work. In most cases, although not all, they keep a high standard of accuracy.

We have a *Memorial Hospital News* for which the office of public relations is responsible. It is published monthly and has developed into an important factor in knitting closer the various departments. It was originally issued for the purpose of keeping our nurses, doctors, and personnel with the armed forces informed about hospital happenings. However, there was an immediate demand for it within the hospital.

One of the important factors in the success of a public relations program is the cooperation of the department heads. I think we have accomplished this by

making the purposes of our work and its value to the institution crystal clear to them; by accurate interpretation of their activities; by checking with them anything that concerns their departments; by achieving results for their departments and for the hospital as a whole; by tactful cultivation and tolerance; by understanding their working conditions and adapting our work to theirs in order to cause the least inconvenience to their busy hours. This is imperative at this time when everyone is working under such pressure.

We try not to push hard in working with the others but are quietly persistent, and the work gets done. We never let them feel that our work is more important than theirs. It is just all of us working for the best interests of our hospital in which we all have the greatest pride.

At the outset I laid down the uncompromising stipulation that all information, whether for the daily press or magazines, must be funneled through the office of public relations. This applies to photographs as well as stories. After a long campaign of education, coupled with many headaches caused by irresponsible giving out of unauthorized information, we have reached the point where every service and department in the hospital, from the director's office down, give us the fullest cooperation in this all-important phase of our work. I cannot emphasize too strongly the fact that hospital publicity, to be constructive and effective, must be controlled. This policy is supported by a resolution of the board.

Sometimes it is not necessary for me to act at all on certain information that goes out. It is imperative, however, that I am apprised of it so that it fits into the total publicity picture. There is not a nurse or any employee who will let a reporter, photographer, or stranger come to him

for information, photographs, or what-not unless he is accompanied by me or by a representative of my office.

I go carefully over each project with the department head before it is undertaken, to confirm its practicality and to arrange matters for the greatest convenience and efficiency for everyone concerned. These policies have led to the most agreeable working relationships with department heads.

The most important part of our work, certainly the part to which we give the most time and attention, is in the preparation, production, and dissemination of publicity. Publicity has three major objectives: creation of good will, education of the public, and background for support activities. These objectives are achieved by various means. No one aspect of these means is more important than the other in the broad pattern of a publicity program.

I have always found the newspapers approachable and receptive. The more important they are the easier of access they are if you have a good story. Even if you go to them cold, you get attention and space.

The secret of successful newspaper publicity is a good story, either news or human interest. If you do not have news and you need newspaper space you must create the news.

These events embrace a wide field depending on creative resource. They may take the form of the celebration of an anniversary, a series of lectures for the lay public on a timely topic in the medical field, the inauguration of some new service in the hospital, or the issuance of a publication.

We keep our publicity material on a high standard of news and human interest. Therefore, we have made many

friends on the newspapers, friends who not only are there when we need them but come to us when they need information either concerning us or concerning the medical or hospital field. These are priceless contacts developed over a period of time by demonstrated high purpose.

Each year we outline a broad publicity and public relations program. The all-important question that governs it is, "Where shall we place the emphasis?" The emphasis is established only after numerous conferences with the director of the hospital and with the members of the public relations committee. Once this is decided the techniques at our disposal go into action.

It is my work to build the program and to carry it out when it is approved. The program must be versatile, flexible and adaptable, with one big classification headed "The Unexpected." Capitalization of the unexpected is a key to good publicity results.

Let me give some illustrations. A few years ago, owing to certain trends in our field, we decided that the simple story of cancer expressed in lay language and pointing out Memorial's part in combating and conquering the dread disease should be the trunk of our year's publicity tree. Our program was to be geared to the three main purposes previously mentioned: (1) educating the public (this always in the hope of overcoming fear, perhaps the greatest factor militating against early recognition and treatment of cancer); (2) acquainting the public with our efforts in treatment, research, education, and prevention, thus to influence financial aid in support of the work; and (3) creating good will for our hospital.

Such a program as ours leads up to one main period of publicity. Our publicity has purpose and meaning. Stories branch

out from the main stem of the program throughout the year but always with a definite objective.

The year we told the story of cancer for the layman the high point of the publicity effort was the publication of a 72 page booklet entitled *Record of Service*. This booklet was an example of the full cooperation of all medical and administrative divisions of the hospital.

The director of the hospital wrote the story of cancer and explained what our research laboratories are doing to find its causes and cure. Each clinical service chief contributed a section on the work of his particular division in the light of latest development. The administrative end of the hospital and its contribution to the total effort were represented by the report of the superintendent. Individual diagnostic and research laboratories not covered in the director's material were also represented. The contribution of our office was to translate all these papers into simple language easily comprehensible to the general public and to produce them in a booklet.

We released the booklet *Record of Service* as a news item. We could do this because it was a dramatic deviation from the conventional hospital report and because its contents actually had news value.

The first step in the publicity campaign was the preparation of a 1,500 word release for the newspapers. The chairman of the committee on public relations, who has contacts with the publishers and editors of all the New York newspapers, personally took a copy of the report and the release to the newspaper men. Equally or more important, he gave the report to the chief editorial writers of the papers and went into the subject and its significance with them.

On the release date we had a cloudburst

of publicity. The release itself was used practically verbatim under effective headlines. The particularly gratifying feature was the fact that every New York newspaper printed an editorial on the report and the hospital activities.

For this reason we had some of these editorials reproduced in facsimile and sent out as an enclosure with our regular appeals for funds.

We are most fortunate in having such invaluable contacts. However, any good cause with adequate material can achieve results.

The New York results were only part of what we finally obtained. Both the Associated Press and the United Press sent out syndicated articles on the contents of the report which meant that newspapers throughout the country printed columns of material. In addition, there were many special feature stories and magazine articles written by science writers.

We also sent out about 3,500 copies of *Record of Service* to individuals. The simple story of cancer was widely told. No one can, of course, measure exactly how many people knew more about cancer than they did before, but we can say that always after these bursts of publicity our examining office has a tremendous increase in the number of people who want to be examined for a lump here or a pain there. There has also been a noticeable increase over the years in the number of patients coming to us early with health problems.

In terms of financial aid resulting from the dissemination of this particular report much can be told. This story will illustrate. One day a man from the Middle West asked to see the director of the hospital. After he had seated himself he pulled a copy of *Record of Service* out of his pocket. Tapping it with his finger he

said, "I have read this illuminating booklet. My wife and I are interested in cancer and in the approach of this hospital to the problem. We have in the past been small contributors to your work, but after reading this publication we have decided to contribute more substantially to the support of your cancer research program." At this point the visitor handed to the director a check for \$10,000, the first installment of a gift of \$50,000.

The emphasis of one of our subsequent publicity efforts was laid on the prevention of cancer. We had an adequate background for this campaign in our cancer prevention clinic which opened in 1940 and which at this time was just beginning to show results.

The focal point for this publicity was the publication of a triennial report, which, like *Record of Service*, was released as news. This publication embodied the first statement of the prevention case in results and received wide comment. One of our objectives was to create a demand for cancer prevention clinics throughout the country. Therefore, we sought national publicity particularly.

The high spot of this campaign was reached through an article written by the chairman of the public relations committee and published in a national magazine with a circulation of several million. The magazine and the author received hundreds of letters from women throughout the country asking for further information. Since the appearance of the article our prevention clinic has had so many requests for prevention examinations that it is still necessary to make appointments long in advance.

This year Memorial celebrated its sixtieth anniversary. Publicity emphasis was on this event. The news interest was focused on a series of lectures for the lay

public in the hospital auditorium. We used this means of cultivating our contributors, new friends, and the general public.

We find the public increasingly eager for cancer information it can understand and by which it can profit. We are more and more leaning toward lectures which create the opportunity to bring people into the hospital.

Along with our big over-all programs go stories about other phases of the work, stories on volunteers, nursing, unusual equipment, and human interest stories. We are constantly wooing the magazines as publicity outlets. On the other hand, magazines seek us for material.

Photographs play an important part in our publicity. Often when I say story I mean photographs. They are synonymous in my mind. One of our jobs, therefore, is to develop picture stories. I found recently that there were three generations of one family doing volunteer work in our hospital. That seemed like a good picture story opportunity.

I cast around and finally decided to try it on one of the leading so-called smart fashion magazines. The family represented a type that fitted into the pattern of the publication. The editors liked it and took the photographs. A full page photograph of this family in uniform taken at Memorial, with a caption pointing out the need for hospital volunteers, appeared in the September issue.

The publications I have mentioned comprise only part of the literature that is produced by the public relations office. We write and issue visitors' and patients' leaflets, special booklets covering various phases of the hospital activities, and promotion folders.

Our office works in close cooperation

with the ways and means committee of the board. For it we prepare all appeal letters. Being a voluntary hospital, Memorial is dependent on the public for support.

I should mention certain features of policy that govern our publicity. No information concerning patients is given out and no photographs of patients are ever taken. When pictures are made in the hospital those who participate in them are required to sign an authorization and release for these photographs giving the hospital permission to use them at its discretion. We never photograph doctors in practice and rarely quote them. When a photograph of a doctor is necessary in a picture a resident intern is used.

The basis of our amicable relations with

our doctors is that they know that we go to every extreme to protect them. We have the cooperation of the staff because of its appreciation of the value of publicity in hospital support.

What I have said applies, of course, to public relations of a special hospital that is national in its scope. It is national because we receive patients from every state in the Union and because cancer is a universal problem. I feel, however, that my work is adaptable to any hospital, special or general.

There is a place in every hospital for a public relations service. Hospitals that do not take advantage of this are missing an opportunity for increased support, interpretation, good will, and general usefulness to the community.

6. The Need for a Strong State Program in Public Education, by Florence King*

THE role of the hospital in the realm of public education is a fairly recent one. In its earliest days, the hospital limited its activities to the bedside care of the sick. Then came research and the education of nurses and interns—and finally the importance of its function in the field of public education was recognized.

For many years hospitals, under the veil of professional dignity, remained aloof from the "hoi polloi"; they liked to feel themselves set apart in their role of ministers of mercy. But with the advent of the 1932 depression they began to see the fallacy of their detachment. When things sail along smoothly, we like to move on our own power; but when we get into a tight place, we suddenly decide to share our difficulties and thereby enjoy the sympathetic understanding thus engendered. So it was with the hospitals which, needing not only financial aid but the friendly understanding of the public

as well, finally acknowledged the fact that, since in the final analysis it was the public who supported the hospitals, the public should know something about the institutions they were financing.

Once we started airing our troubles, we found a most receptive audience. We found it not only idly curious but most intelligently interested as well. The publicity director, always searching for human interest stories, soon found the hospital catapulted into the role of the country's Human Interest Story Number One.

Hospital people are accused of "talking shop" at every social gathering. But whose fault is this? The minute guests at a dinner party find out that one of their number has some hospital affiliation or interest, all conversation is turned toward him. The coal merchant or the shoe manufacturer can eat in silence; the hospital representa-

* Adapted from *Hospitals* 17:28-31, Mar. 1943.

tive must perforce take the center of the stage and explain or defend hospitals, listen to a recital of everyone's experiences, and answer questions, intelligent or otherwise.

With the public so eager to imbibe information, the hospitals were quick to supply it. After finding so fertile a field for the implantation of the seeds of information, they became tireless tillers of the soil. But in their enthusiasm they did not always sow the right kind of seed.

The first thing many of us did was to issue hospital bulletins describing our excellent x-ray equipment, exhibiting our comely student nurses, and showing a delectable dinner tray, in the hope that this would lure the better families to our doors and imbue them with the idea of leaving the hospital a fat-sized legacy. We did not fall quite so low as to offer bigger and better operations, nor did we employ barkers to shout, "Step this way to the city's finest hospital!" But we were shortsighted and selfish and, while doing what we conscientiously thought was right, we actually went in for advertising which, to salve our consciences, we called "public education."

Americans boast that we call a spade a spade. But do we? Are we not guilty of being what we might call "vocabulary dodgers"? Our grandmothers would have been caught dead before they called a limb a leg. Few people use the word "breakfast." They prefer to murmur something about "just a cup of coffee," which in reality is usually a good square meal. Today it requires the courage of a rugged individualist to say "stockings," instead of using that far fancier and certainly more expensive-sounding word, "hose."

So, while the words "public relations" and "public education" sifted into our hospital terminology, we were using them for

what, had we been honest, would have been called advertising. With half our hospital beds empty and with huge deficits facing us, we started in desperation to copy business and use the medium of competitive advertising, though never were we so base as to use that word. While we prated about public education, our efforts assumed the nature of cut-throat advertising and fell short of anything educational. The great majority of us, trained as hospital administrators and not as advertising managers, promoted petty and lopsided publicity programs which centered all interest on our individual institutions and usually sought financial benefit therefor.

We soon saw that, while legacies and bequests were certainly needed for our institutions, if we limited our efforts to appeals to wealthy potential donors, a minority group, we were losing sight of the thousands of other citizens in our community whose friendly interest and kindly support were equally needed. We also learned to discard the idea that so many inches of space in the local newspaper telling that Mrs. So-and-So had recovered from her appendectomy at our hospital fostered a public education program.

Eventually, we observed the trend in commercial advertising and found it saying less and less about purchase and devoting more and more space to general information for a public that was eager to assimilate it. A glance through any magazine will show that manufacturers are stressing the ultimate benefits derived from use of their product rather than thrusting the product itself upon the public. Nowadays advertisers of food products stress the science of nutrition and the health benefits obtained through good food habits but make little mention of the

item they are trying to sell. We are all familiar with the advertising policy of one of the foremost insurance companies which, though it is one of the largest purchasers of advertising space in our leading periodicals, never makes a direct appeal to anyone to buy insurance. Instead it devotes all its advertising space to the prevention and cure of disease. Other firms have adopted a similar policy and at last hospitals, which would have been shocked at the use of the word "advertising," have stopped their so-called peddling of wares and bickering for the highest bidders in legacies and are keeping step with their industrial brothers in the field of public education.

Once the individual hospital became aware of its own inadequacy as a publicity medium and sought intelligent assistance from the proper source, its public education programs became worthy of the name. First came the admission by the average hospital administrator that, though he might excel in administering his institution, it did not necessarily follow that he was an educator and a publicity man. He needed expert help. But what hospital could afford to employ the right type of person to do this important job?

The answer is found in the formation of a state-wide program financed and directed by the state hospital association. Just as many years ago hospitals found they could solve their individual problems better by banding together and forming state associations, so today they are finding it wise to pool their resources for the establishment of a state-wide program in public education. After the trial and error period, when individual attempts at public education had simmered down to cheap advertising and often resulted in unfriendly competition, the hospitals

found cohesive thought essential. They finally admitted that an intelligently conducted state-wide program would eliminate the pettiness of individual effort and give the program dignity and breadth.

Indeed, throwing the program of public education into the lap of the state organization has in many instances justified the state association's existence and given it a goal to achieve. Many a state hospital association has existed without any purpose or vision. It has merely collected dues, elected officers, purchased elaborate letterheads, and, after a poorly attended breakfast meeting held during the national convention, adjourned until the following year, considering its mission in the hospital field fulfilled. A wide-awake program in public education may drag such an association out of the doldrums and give it an impetus to serve its member hospitals.

The state association has long recognized its obligation to secure legislation helpful to the hospitals, but in that respect it put the cart before the horse. Had the public education program come first, laws favoring hospitals would not have been difficult to obtain, for once the voter has been educated to appreciate and know the hospital, his ballot will reflect his sympathetic interest and understanding of its problems.

The state organization can through its treasury pay the salary of a qualified publicity director and finance the publication of a bulletin which carries a message of an educational nature and will not be limited to newsy bits about Nurse Smith marrying Intern Jones. A specialist in public education will maintain an unbiased over-all view of the state situation and furnish hospital trustees, public officials, and socially-minded citizens with those pertinent facts to which they, as supporters of the hospital, are entitled.

He will not forget that it is "we, the people" who pay the bills in all our hospitals—voluntary or tax-supported.

Someone may ask, "Why not utilize the resources of the Blue Cross Plan for the dissemination of this information?" May I give my personal answer and beg your indulgence while I refer to my own state? In Missouri we look upon the Blue Cross Plan as a younger brother who has made good and has more change in his pockets than the rest of the hospital family. But very definitely we consider him part of our family group and look to him, as the more affluent member of the family, for help. He needs us and we need him and we do not even ask him to assist us. We know that his resources are at our disposal and that the advantage of his state-wide activities are ours. He has proven our best buddy in our National Hospital Day observance, which has constituted our major public educational project thus far. The Plan, knowing that it benefits too, has given generously of funds and the service of its office personnel. In Missouri we just take it for granted that we unite our efforts and enjoy the advantage of the assistance that the Blue Cross Plan, by virtue of its large organizations and financial superiority, can give its poor relations.

We know also that its representatives, while serving the majority of the hospitals in the state, can feel the pulse of public opinion and interest in a field far broader than that which any individual hospital serves. We know also that the Blue Cross Plan must gather data for the furtherance of its own organization. Duplication of effort would result if the state association were to seek this same information for distribution to its members. So it is only reasonable and economical for the two organizations to dovetail their activities

and work together for the benefit of all the member hospitals.

If we agree that the individual hospital is not endowed with professional skill or financial resources to conduct its own program of public education and that a state-wide program directed through the correlated efforts of the state hospital association and the Blue Cross Plan is more desirable, we must now consider the type of individual to do the job. He should be someone tried and tested in public relations and publicity—not one who has a friend on some newspaper or who knows the receptionist at a large radio station. Nor should he be a broken-down newspaper man who was a fizzle at his former job. He must have vision and a good eye for popular appeal, and be that sort of genius who can catch the public's interest and yet avoid the sensational. He must use up-to-the-minute tricks of journalism and still not violate hospital ethics. Every detail must be authentic or criticism is bound to arise.

I have in mind a set of attractive photographs prepared for a National Hospital Day exhibit. The subject material was excellent and the photography beautiful. But the nurses caring for newborn infants were pictured without masks and visitors with little children at their side were shown leaning over the bassinets in the nursery. The pictures were lovely from an artistic standpoint but immediately the hospital in which they were taken was the target of criticism.

The public education director must with long-range vision anticipate the reactions of every group that will be reached by his publicity. May I cite my own experience as a horrible example of the violation of this principle? For National Hospital Day this past year I arranged for several feature articles in our local news-

papers, one of which appeared in the form of an interview which a popular feature writer had with me. Our hospitals were at that time beginning to feel the acuteness of the dearth of personnel and I was most dramatic in pleading with the public for consideration. As a final flourish I dwelt on the difficulty encountered in caring for flowers in the hospital, commenting on the time spent in carrying them back and forth, cutting stems and changing water. I even went so far as to picture a nurse slipping on a fallen rose petal and suffering a fracture.

I was quite pleased with myself and felt deep down in my heart that I was becoming the hospital's gift to journalism. Soon I was to know the true import of "Pride goeth before a fall." And great was the fall thereof. I was deluged with protests from florists, denouncing me for trying to ruin their business. One letter from Texas informed me that the wrath of the florists down there was nothing compared to that of those in California who considered me no less than a public nuisance.

In my innocent enthusiasm to appeal to the public to save a little work for the nurses, I had unwittingly offended a group of people for whom we all have the highest respect. I learned then and there my own shortcomings in publicity work.

A short time later I attended a meeting in another city where an earnest hospital administrator, eager to recruit student nurses, advocated what amounted to nothing short of exploitation of the student nurse as a cheap substitute for the salaried graduate and overlooked entirely the educational advantages offered the student in the recognized school of nursing today. In making an impressive appeal to an intelligent audience, he presented a picture diametrically opposite the plane

to which nursing education has long since been raised.

He and I, and perhaps you and you, had better look to an expert publicity director for guidance from now on if we expect to go far in the field of public education.

Advocating a state-wide program does not necessarily imply that local programs are to be frowned upon. The intimacy and personal appeal of a local program can be of distinct value in order that local needs will be met, local customs respected, and local situations improved. But, if a local program is developed by the hospitals and health agencies in a particular area, it should be under the general supervision of the state director.

The two sections of the program (local and state-wide) may well use the same publicity media, the most important of which are:

1. *Newspapers and Radio.* News stories and feature material, with concentration at the present time on war activities of hospitals, such as the training of nurses' aides, recruiting of student nurses, establishment of casualty clearing stations, etc.

2. *Service Clubs* (Rotary, Kiwanis, Zonta, Soroptimists, etc.) provide first rate speakers for their meetings and activities and keep them informed of the hospitals' progress and development.

In St. Louis, the Rotary Club has been taught to appreciate the needs for increased enrollment in our schools of nursing. As a result, the Rotarians have established a substantial fund to give financial assistance to worthy young women who without such assistance could not enter our schools. The Soroptimist Club of St. Louis has given one hospital \$1,000 to endow a child's bed and \$500 to another hospital for equipment. Both these clubs, as well as others which have contributed

money and service to our hospitals, have first been given intelligent information regarding needs and then contributed wisely.

3. *Schools.* Speakers for faculty meetings, student assemblies, Parent-Teacher Association meetings. Tours of hospitals by students to inform them of the hospital's problems, operation, and activities. Close association between nursing schools and high schools and colleges in the area may result in increased enrollment of student nurses.

4. *House Organs* of industrial organizations, church newspapers, magazines, bulletins. Also the publications of various groups and associations in the state, such as Farm Bureau newspapers.

5. *Distribution of Printed Material.* Distribution of news of interest about hospitals by the telephone company, utilities, department stores, banks, civic organizations, and by the hospitals, either by mail or by placing the folders in receptacles in public places, may prove a good publicity medium.

6. *Cooperation with Medical Societies* and other allied health groups in their various programs.

7. *Use of Motion Pictures* of an educational nature which are made available by the American College of Surgeons, the American Hospital Association, the Hospital Service Plan Commission, and other organizations.

Few of us are endowed with the gift of prophesy. We cannot foretell the changes that will affect our hospitals during the war and post-war periods. But all of us can see the handwriting on the wall. The Government plan for income taxation alone will seriously affect us. Other changes are coming which we may or may not like, but come they will. Our hospitals (both voluntary and tax sup-

ported) must lend themselves to a program of greater and perhaps more difficult service and must through an educational campaign prepare the public to accept as a privilege its share of making that greater service possible. Only through an enlightened public can this be accomplished and it is up to us to do the enlightening.

I read an article recently by Robert Keith Leavitt, entitled, "What We Don't Know *Can* Hurt Us," in which he states "Half-baked thinking can ruin the nation. Get the facts—and think straight—before you talk." Then he proceeds to say, "What one man doesn't know may hurt you, for it can hurt us all. His voice forms a part of public opinion. His gripe—though it is that of a minority—has weight with timorous Congressmen, jittery in an election year. His objections, founded on ignorance, can hold back the effort of the nation—perhaps by just that narrow margin we will need some day in a moment of crisis. Public opinion shapes American policy in these things, opinion expressed not merely at the polls but millions of times a day in every corner of the land. And that means your opinion and mine and those of all our 130,000,000 fellow Americans. Our opinion molds that of Congress, of the Administration, of the General Staff itself. . . . So our opinion had better be sound, for our lives' sake. Misinformed public opinion can misguide a nation just as fallacious personal opinion can mislead a man. It's time we started to master the facts of the case. What we don't know can ruin us. What we do—if we have the good sense to use it—can make us victors and leaders in a better world."

Every word of this applies to the hospital field. Let us make sure we have a

worth-while message and tell it through the proper channel. And let that proper channel be a strong state program in public education.

7. The Joint Program of Public Education for Hospitals and Blue Cross Plans, *by R. F. Cahalane**

IF THE Good Samaritan of biblical history had read and applied the admonition, "Do not hide your light beneath a bushel," there would be no need of this discussion. Many people think that hospitals are profit institutions and that "they have a pretty nice thing with all that income," that they are subsidized by the state, that they have huge endowments, that they never go in the red, and that they are self-fed by the spirit of service with which they are imbued.

Perhaps your opinion of public reaction is based on your hospital viewpoint. You see people as individuals, as they enter your institutions, suffering, in need of care. You see these same people reborn as they leave the hospital and you cannot help but feel that they must have a deep sense of appreciation for the service they have received. They should have such a sense of appreciation and they should tell the hospital story to everyone they meet. But man is vain and one of the ways of exaggerating his importance is to place a large price tag on the necessary hospital services which he received. In telling the story of the care rendered him by the hospital, he may stress the size of the bill he faced as he left the hospital. And what other story has he to tell? Service, of course. The tireless way in which geni responded to the pressure of the bedside button. But that story of the hospital and its *modus operandi* are left to his imagination. And that is our fault.

I was amazed in my first Blue Cross contacts with the public to discover that erroneous and mischievous notions about

hospitals were apparently public property. First, there was no public understanding of hospital need for income. Hardly a meeting was held that some good citizen did not pop up and ask, "Why should I join the Plan and pay 75 cents a month, when I can go to the hospital and get it for nothing?" At a meeting of office employees of a large university, a man said, "I'll never go to a hospital; they make guinea pigs out of you." When I asked where he ever got such a misconception, he replied, "Why, every hospital has a plaque over its door reading, 'For the advancement of science and service to mankind,' and you notice that 'advancement of science' comes first." I had a hard time explaining to him that autopsy was not hospital hazard number one. A woman, at a group talk, eyed me angrily as I made my exhortation in behalf of Blue Cross. At the finish I asked, "Are there any questions?" She blurted out, "I'd like to see them try to hold my baby." It developed in the incoherent ramifications of her story that the woman next door had repeated and elaborated on a story of a hospital that had merely tried to collect its bill. Further questioning revealed that an untrue impression had been implanted in the mind of the woman. Without carrying farther this preface to the need of a public education program for hospitals, I suggest that you conduct a miniature Gallup poll—not among your patients or their friends who call; let your poll be of the man in the street, the fellow on the corner. If you have had doubts as

* Adapted from *Hospitals* 17:83-85, Apr. 1943.

to the value of cooperating in the development of this program, such a poll will reveal so many prejudices that I am sure you will be convinced, completely and for all time.

This joint program was outlined upon the recommendation of the Council on Public Education for integrating the Public Education work of the Association and the Commission. The initiative was taken by the Council. Its recommendations were approved by the Trustees, at which time the Executive Secretary recommended an appropriation of \$2,500 for the year 1942 to implement the expanded program. You will note that the sum of \$2,500 amounts to about 80 cents per year per hospital member of this Association. Do you think hospitals have received full value for this 80-cent investment?

You may not agree with what I have to say now. As I see it, the time for flattery has passed, if indeed flattery ever was appropriate. It can no longer be adequate to review with pride the accomplishments of by-gone days. It is time to stop paving our roads with the small ill-sorted stones of our good intentions. For some time many have viewed with alarm the growing apathy of the public toward our hospitals. There have been times when we may have detected a sort of invested pride in the echoing and re-echoing of the announcements that bequests and gifts to voluntary hospitals had fallen off sharply, even disastrously in many instances in the last decade, and the dour prediction that we could never hope for the same sort of support which we enjoyed back in the crazy twenties.

Why were they crazy? Because people gave large sums to hospitals with sound social purposes? If that was a symptom of insanity, may we be pitied for having grown so sane and cautious!

Statistics show that our hospitals have received less "free money" during the depressed decade than during the crazy twenties or the decade of delightful nonsense. I grant the *prima facie* evidence but what I want to know, and what all of us had better find out, is *why*.

Yes, in the twenties people were generous because they had more money than they knew what to do with. Ridiculous! That is not the reason people gave to hospitals. There was still Europe to travel over, bigger yachts to buy, bigger estates to acquire and maintain. Wealthy people knew many ways of getting rid of their money.

It is significant that progressive or perhaps merely fortunate hospitals have continued to receive bequests and gifts and have expanded their facilities to meet the need of the public they serve. We are told that nowadays people simply do not have the money—that great fortunes have melted away—that money just is not around. Can this be entirely true? It may represent hard work on the part of someone to tap the sources of funds for hospital expansion and replacements. Where once there were sources of gifts of \$100,000, it may now become necessary to seek one hundred gifts of \$1,000 each. There is as much wealth about as ever, but in this rapidly moving era money reposes in different places. Surely if the public is cognizant of the problem facing hospitals it will face its responsibility as well as it faces its responsibility to the war effort. The public has been sold!

But if the public has lost interest in many of our voluntary hospitals, are we merely to condemn the public, or is it just possible that we ourselves, hospital and plan administrators and hospital trustees, and even we members and officers of state and national associations, have also

been to blame because we have not realistically faced the problem of making the public aware of its great dependence upon our voluntary hospital system and its responsibility to share in its maintenance and expansion?

We have been to blame? That is a shocking thought indeed. Of course it is not the complete answer. There is much blame elsewhere, I am sure, but the blame elsewhere is at the moment beyond our reach, and before seeking it out and attacking it we will do well to examine our own shortcomings and see if we cannot mend our own ways first.

Perhaps we have not accomplished all that is desirable because we may have been smothered in some degree by preoccupation with economics. We have written, talked about, and worried about the future of our hospital system, but have too often started or ended in the spirit of self-pity or defeatism.

I wonder what Henry J. Kaiser would think of that! I think he would say, "Move over, brother. I need the metal in that chair for a ship we're launching tomorrow!"

Regardless of the cynicism of some bystanders, most men and women do not become hospital trustees for the glory of the job. They accept their appointments with a knowledge of their responsibilities and a willingness to serve. What really has happened? I would not profess to have the only or complete answer. I will venture to suggest that many of us have become hypnotized by the idea that the Federal Government should, or anyway soon is going to, take over the voluntary hospital system. It is the easy way out to let someone else take over the whole financial responsibility.

We have indeed made it plain that we would prefer to retain the control of man-

agement of our hospitals—the hiring and dismissal of employees, and the shaping of policy. This has been said quite plainly, if not very loud. Yet all the time of course we have known that in the end those who control the source of our funds would also control policy, management, employment, and purchasing. This of course has given comfort and support to those who foster legislation proposing in effect a plan to make Blue Cross Plans ineffective. I have feared that this excuse has represented a surrender to popular thinking and is a ready-made alibi for inaction. One might doubt if enough genuine thinking has been devoted either to the immediate future of the voluntary hospital system in this war or to its future after the victory of the United Nations.

I have thought, speaking rather bluntly, that we have been in a fair way of losing our voluntary hospital system. If it is lost, we shall have lost more than a symbol of democracy. We shall have lost an invaluable and perhaps irreplaceable part of our democracy. Could we be forgiven for having deserted such a magnificently efficient system of hospital service without a decent, genuine, wholehearted, sacrificial effort? By we, of course, I mean the American people. You know as well as I the resigned, defensive position so many have taken, and the signs which even now are showing the beginnings of disintegration. Perhaps I have been unobservant, but I have heard virtually no talk. I have seen little that has been written about what and how much hospitals can do to help win the war. You and I know that hospitals are trying to do their utmost, but it seems to me that the overwhelming mass of things that have been written are in effect only a catalog of problems. We have not done the job of which we are capable. If we had, there would be less like-

lihood of a loss of our voluntary system. Any deterioration in our system naturally invites governmental intervention as surely as any emergency of the depression or any other deficiency brought about by war-born demands.

We do not have to ask the question, for we do honestly believe that our hospitals, our voluntary hospitals, are worth saving. They are worth saving, even if their help in this war and after victory costs us added effort—very valiant, well-directed, essentially expensive effort.

Let us give no glib answer. Let us answer with true conviction—conviction which has been lacking all too often—conviction that is akin to courage—conviction that sires powerful action. Let us find out what is wrong with us and what we need do to regain that vitality that we once took for granted.

It may not do any good now to talk about what we should have done to forestall this illness. I am convinced that if, over a long period of time, our hospitals had conducted a strong, vigorous program of public education they would now be better able to overcome the social theorists who are attempting to change our hospital system. Had there been anything near perfection and thoroughness in public relations and public education, our hospitals today would be in a top ranking position with other big businesses and industries and would be receiving closer cooperation from the government in these difficult times.

We do not frown on governmental help in caring for the various public assistance groups. We have the right to solicit this help for those institutions which may need it, after all other possible resources are exhausted. But I think we should do the job in our own way, as we have in the past, when it is at all possible.

It has been often said that it is unethical for hospitals to sell. If by selling you mean telling the public what it needs to know about the voluntary hospital in order that it may continue to enjoy the highest quality of hospital professional care the world has developed, I believe that such nonsense belongs to the time when women carried parasols and doctors wore Prince Alberts.

America's voluntary hospital system will be accepted by the American people if the hospitals will let the people know what this voluntary system means to them. It is not too late to do this, but it is nearly so. Some of our leaders in Washington have jolted us by saying that the United Nations are losing this war. I think it is time that the voluntary hospitals and the people who utilize them recognize that hospitals too are in danger of losing their place in this civilization.

Let us get to the focus of this creeping sickness, adopt the right treatment, find out what our hospitals need, make sure that it is best for the public, and then sell it to the American people. If we do not do so a system of hospitals not to our liking can and will be sold to the American public and this will be done unless we get busy now.

I know that some will say it is unethical and there is no precedent for "selling" our voluntary hospitals to the public.

I am convinced that we should have the fortitude, courage, and strength through the team loyalty of hospitals and hospital service plans to understand each other and establish a common front so worth while and so strong that its lines will be impenetrable. I beseech every hospital administrator, every hospital trustee, every Blue Cross Plan director and employee to put his shoulder to the wheel in a coordinated effort to

establish in the minds of the American people that we have a system designed for the American way of life and dedicated to the service of our people, regardless of their social or economic status.

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CHAPTER XXX. VOLUNTEERS AND VOLUNTEER SERVICE

I. Integration of Volunteer Hospital Service, *by George P. Bugbee**

HOSPITAL volunteers after many years of fine service are coming into their own. Hospitals throughout the country are calling on volunteer workers to assist them in maintaining health and morale in wartime. Never has there been greater need for volunteers in the hospital; never has there been greater satisfaction in service rendered than is available to the volunteer today.

These are days of adjustment, shortages of personnel and equipment—days which might be described as difficult for hospital personnel were not complaint beneath any of us who are so fortunate as to live in this country and have the opportunity to share in the responsibility of a democracy at war. Hospitals, as never before, need volunteer workers. Fortunately, as never before, the women in this country are volunteering to assist hospitals. As a hospital administrator, I wish first to emphasize our appreciation of volunteer workers and their effect on the hospital organization.

Illness may come to all of us. It has been stated that the average citizen of this country spends one day in a hospital for each year of his life. A large majority of us have been hospitalized for illness. No one who has been hospitalized fails to remember the importance of that occasion to himself and the dependence he felt on the doctor, the nurse, the elevator operator, the information clerk, in fact, every member of the hospital personnel he met. Almost without exception, admission to a hospital looms large as one of the crises of life for the average individual. Each

patient expects much from hospital personnel; he expects accuracy, promptness, kindness. As far as his personal treatment is concerned, he makes no allowance even for the usual percentage of human error.

This dependence of patients on hospital personnel is a challenge to the doctor, the nurse, the lay worker, and to the hospital volunteer. There is a satisfaction in service when such service means so much to the recipient. Nevertheless, for the full-time paid hospital worker there inevitably comes a day—perhaps more often now than in normal times—when increased problems repeated day after day tend to obscure that relation of service to the patient and the obligations which are imposed on the employee. Volunteers in the hospital forcefully suggest to the paid workers of the hospital that the needs of the patient and day-to-day work in meeting those needs are different than the obligations placed upon the factory worker, the lawyer, the farmer, and the merchant. The volunteer worker is a continual reminder to full-time hospital workers that the service which can be rendered patients in the hospital is in itself a compensation, that for the volunteer solely the satisfaction in an opportunity for service brings her back to the hospital day after day, year after year. The volunteer continually reminds us that the hospital is not a commercial institution, but rather a service center whose performance must transcend normal business relations if it is to meet its ideals of service to sick people.

Volunteers can perform many functions

* Adapted from *Hospitals* 16:42-44, Dec. 1942.

in the hospital. At City Hospital in Cleveland the volunteers were organized and supported by the Junior League. They have been serving since 1930. Volunteers are assigned to the outpatient department where they assist with the clerical work, assist the nurses, and help in the transfer of patients and medical records from clinic to clinic. Volunteers are assigned to the main information department helping to issue visiting permits and giving the condition of patients. They are assigned to the pediatric wards, they are assigned to assist nurses on the adult divisions in helping to feed patients, they perform many tasks which are time-consuming and so relieve the nursing personnel for more highly skilled services to patients. These are some of the regular duties performed by volunteers. In addition, almost endless calls go to the director of our volunteers for assistance.

The type of calls may be best shown by excerpts from the director's monthly reports, from which I have chosen as follows:

"Volunteers have proved invaluable this month during periods when members of the paid staff of the hospital were away due to illness or other causes. The girls who have worked at City Hospital for a long time and have learned routines and procedures have been given an opportunity to demonstrate their ability to carry on in the absence of the regular employees. One girl has put in at least thirty hours on the switchboard. On other occasions volunteers have worked in the information office through the evening visiting hour."

"Curious requests find their way to the volunteer office sometimes. Radios, playing cards, magazines and stamps are the usual order, but roller skates had us puzzled. We knew there were distances in

City Hospital that roller skates would shorten, but these were for a patient in bed. We supplied them and then went to see them in action. Strapped at right angles to the feet they rolled back and forth on an upright board and supplied much needed exercise to an orthopedic patient."

"Volunteers served many hours in addition to their regular work during the Convention of the American College of Physicians. They came at 8:30 A.M. to direct visitors to clinics, and they came on Sunday when the applicants for membership were being examined. The response from the girls to these special requests is always very gratifying."

"Belated Christmas shopping has finally been done for the children's ward with money designated for that purpose. A combination radio and record player has been installed, and the 'Pinocchio' records and the 'Little Red Fox' are heard all through the day. Once more the bird cage has an occupant, and 'Bing Crosby,' one of the Master Warblers, adds his voice to the chorus of sounds."

"There have been many visitors to the hospital this month, among them the 'Newcomers' Club' of the faculty wives of the University. So great was their interest in several departments that the time allotted to their tour was far less than needed, and the guides went lunchless to their afternoon assignments."

"At the request of the operating room supervisor, volunteers are working each morning in the surgery office. Their prompt answering of the telephone will make unlikely the gift of an endowed secretary such as one eastern hospital has, but perhaps the danger was slight anyhow. It is said that a wealthy business man lay waiting to be wheeled into a surgery and was forced to listen helplessly to the urgent ringing of a telephone. His first in-

quiry on coming out of the anesthetic was 'Whose business is it to answer that telephone?' On being told that it was no one person's responsibility, he decided that a change should be made and at once. Forthwith he set up a fund to pay the salary of a girl whose first job was that telephone. In the absence of irascible but philanthropic patients the volunteers will help the surgery staff keep nerves from that particular kind of torment."

"A plea was advanced recently by two of the doctors for a piano that would really play for the interns' lounge. There are some pretty good musicians among the boys, but the noon and evening 'jam sessions' have stopped because only about half the keys on their piano work. A local company produced a pretty fair one for the employees' dormitory at our request—perhaps they have another which can be had for cartage costs. We offered to go fifty-fifty with the doctors on cartage if a piano can be found."

"We are waiting with much interest the coming of the Red Cross nurse's aide students for their period of practical training. We hope some of them, particularly our own girls, may be assigned to us for their 150 hours of work and will remain on indefinitely. Our need for help on wards is becoming greater all the time, and these Red Cross students will demonstrate the potentialities of volunteers and girls recruited from other sources may be used to better purpose."

As can be seen, the volunteers at City Hospital perform endless services. They are a mobile group which can be called upon, never being limited by lack of enthusiasm or willingness to serve, but only by the professional skill required.

The hospital has the service to be rendered. The community—any community—has available potential volunteers to

render service. That these two complementary facts exist does not inevitably lead to a successful volunteer service in the hospital. Volunteers place a responsibility on the administration and personnel of the hospital for proper integration. The administration must not abuse the good intentions of the volunteer. Volunteer workers must be permitted to render service which will be a satisfaction to them and will not be beyond their capabilities. The volunteers must not be used for work which can and should be done by paid workers. Hospital personnel must not in-ject untrained volunteers into relationships which require training. Hospital personnel must understand that the volunteer is, as the name implies, offering her services without compensation, and cannot be expected to perform duties for which she is untrained; yet the volunteer must be given direct assignment. She gives her time and does not expect to report for duty and be given no duties, or be assigned work which makes no contribution to the patient or the hospital.

The volunteer must recognize the limitations of her training; she must realize that full-time hospital work may give some paid hospital employees a different satisfaction than hospital work on a part-time basis gives her. The volunteer must understand the confidential relationship between patients and professional personnel; she must bring mature judgment to her hospital experience.

The most important factor in the integration of volunteers within the hospital organization, in order to reach a proper understanding between the volunteer, the patient, and hospital personnel, is the volunteer director. I should be the last to endeavor to list the qualities necessary for a successful director of a hospital volunteer service. It is sufficient to say that the

service requires tact and ability, and that the functions cannot be performed by a busy director of nurses, supervisor, or other full-time hospital worker who is occupied with other duties. The successful hospital volunteer director will, through careful planning, orient the new volunteers; control the assignment of volunteers to duties which they can perform; make the volunteers' service and limitations understandable to hospital personnel; protect the patient from volunteer workers who might be incompatible with the hospital environment. The volunteer director will, during the period of orientation, and in assignment thereafter, establish in the mind of the enthusiastic volunteer the need for meeting assignment by reporting for duty regularly and on time. I hardly need say that the successful volunteer director has a difficult job; that it can be successfully performed, and that it is the secret of success for satisfactory volunteer service in the hospital, is proved by the many fine volunteer directors in hospitals.

The training of volunteer nurse aides is increasingly occupying the attention of the hospitals of this country. The American Red Cross has sponsored a very fine training for volunteer nurse aides. (Initially there was a goal set of two hundred thousand trained nurse aides throughout the country.) Present indications are that original quota may be inadequate. There is an increasing need for well-trained volunteer nurse aides.

The military forces require a tremendous number of graduate nurses who must be largely furnished from the ranks of nurses working in hospitals. On the other hand, no likely reduction in the occupancy of hospitals is apparent. On the contrary, hospitals must be prepared to meet calls for heavy emergency needs fol-

lowing catastrophe or military action. The hospitals of this country will be expected to care for civilian casualties.

A large number of trained volunteer nurse aides should be available in every community—first, in order that they may be available to meet emergency demands; and, second, to assist by day-to-day work in releasing graduate nurses for the armed services. Volunteer nurse aides can only be properly trained in hospitals. Hospitals should take the leadership in seeing that this country has an adequate supply of properly trained volunteers for this service. Such training should not interfere with regular volunteer programs in the hospital. Recruiting of volunteers by individual hospitals is probably more successful than recruiting on a community basis. Volunteers given a standard course of training should be available to meet any community emergency, but should otherwise be assigned to the hospitals in which they are trained for normal day-to-day assistance in the hospital as a nurse aide. Those hospitals having a long-established volunteer program should have the privilege of having the volunteer wear the uniform which the volunteers of that hospital have chosen, which through their service has earned the respect of the hospital patients and personnel. Hospital volunteer directors, through the administration of the hospital, should ensure the training of an adequate number of volunteer nurse aides for each individual hospital and for community needs, preserving the values of hospital volunteer organization in order that such services may continue after the present emergency.

In conclusion, I should like to emphasize the appreciation of hospitals for the service rendered by volunteers; the importance of proper integration of the volunteer service in order that the volunteer,

the patient, and the hospital may realize the full value of the importance to such a program of a volunteer director, the present need for a large group of volunteer

nurse aides trained in hospitals, and the importance of avoiding changes which will interfere with the continuity of established hospital volunteer organizations.

2. A Timely Round-up of Opinion on Working with Volunteers, *by Oliver G. Pratt**

DURING World War I the hospital volunteer was a thoughtful public-spirited individual, usually with some definite hospital connection—wife, daughter, or sister of a doctor or trustee. In the realm of volunteer service she was a rank amateur, whereas today, by comparison, the modern American hospital volunteer is a professional. A volunteer department should be an established element of the general hospital organization, as it has a well-defined function to perform. A volunteer organization is an outstanding success only in hospitals where this philosophy prevails. The principle of volunteer service is an accepted element of the American way of life—both on the basis of individual service and on a grand organization basis as well.

What are we as hospital administrators doing to solve our own manpower problems? Some are doing exceptional work and much pioneering in volunteer service development, but unfortunately too many of us are still operating on the World War I basis.

Without going into minute detail, I shall endeavor to point out certain of the basic principles essential to the successful operation of a hospital volunteer service in these days, including the responsibilities of the hospital administrator.

First, the hospital administrator himself should be sold on the importance and value of volunteer service as a means of supplementing the employed personnel. He must be sold to the degree that he is

willing to sit down and determine the hospital's need for volunteer manpower and give time to the establishment of a volunteer organization equal to the time he would devote to the establishment of a nursing, dietary or medical social service department.

The administrator must also have an appreciation of the volunteer and particularly the way his or her mind works in connection with volunteer service. If he has had experience as a volunteer in some other activity, he can more readily understand the philosophy of the hospital volunteer. If he has not had that privilege, it would be advantageous to work closely with volunteers for an adequate length of time to absorb this philosophy. For example, the present-day volunteer, regardless of his personal interest, desires to do the thing which would be most helpful to the hospital, and he is not willing to report to the hospital for work and then sit around doing nothing or doing something that is not apparent to him as a real need.

If a hospital administrator is sold on volunteer service and has an adequate appreciation of the volunteer's philosophy, he is then ready to think in terms of a plan of organization through which volunteer service can be utilized in his hospital. This definite plan of organization should be agreed upon before volunteers are recruited, trained, and assigned to hospital duties. Briefly, the plan of organiza-

* Adapted from *Hospitals* 18:40-41, Feb. 1944.

tion should provide for a director of volunteer service. She should have an advisory committee composed not only of representatives of the volunteer service groups, but also hospital representatives from those departments where volunteer service is to be given. There should be a chairman for each type of volunteer service: for Red Cross nurses' aides, ward secretaries, dietitian's aides, etc., and each group chairman should be responsible for the recruiting, training, and supervising of the volunteers in her department, with the director of the volunteer service having general supervision of the entire program.

The plans should include an adequate system of records, proper locker and office facilities, and standard uniforms with acceptable service insignia, together with rules and regulations to guide the volunteer in her adjustment in the hospital. The supervision should be of a quality that would eliminate the necessity for the participation of employees. These principles apply to the men as well as the women volunteers.

There must be adequate machinery to make possible close coordination between the volunteer and the people with whom she works. For example, unless there is a proper understanding between the chairman of the Red Cross nurse's aides and the nursing service we will hear that the nurses do the work that they wish and leave undesirable assignments for the volunteer. There must be also a close working relationship between the chairmen of the several types of volunteer service so that there will be a willingness to collaborate for the general good of the hospital. For example, the chairman of a group of volunteers making surgical dressings must be willing to have members of her group up-graded if they desire to take a course

in a higher skill. Up-grading of volunteers should be a specific part of the plan in every hospital volunteer organization.

Briefly then, the organization steps are:

1. The employed organization of a hospital must be sold on the value of a volunteer organization and it must have an appreciation of the philosophy of volunteer service.

2. There should be a definite form of organization which provides for a director of volunteers, an advisory committee to the director, and chairman of each type of activity for which volunteers are asked to serve, and provision for adequate records of service.

3. The hospital organization should develop the specific needs in the volunteer realm, prepare an outline of the scope of activities or specific duties, and place responsibility in the hands of the volunteer organization.

The question has often arisen as to the use of Red Cross trained volunteers—should they come into the hospital as part of the volunteer organization? The answer is definitely "yes." The American National Red Cross accepted the responsibility of training nurse's aides to provide trained volunteers to replace nurses whom they recruited for the armed forces from hospitals. As a result of this planning Red Cross trained volunteers are developed for the good of the people in each community, and if they are to be most effective, they must, in accordance with existing regulations, meet the requirements of the particular hospital.

There can be but one organization for handling volunteers working in a hospital. All trained workers must be willing to accept the type of organization adopted if they are to be effective members of a volunteer corps.

If we as hospital administrators have an understanding of volunteer philosophy, we will appreciate that the one reward the volunteer worker desires is recognition of her contribution to the well-being of her fellow man. Although she gets much personal satisfaction from her activity as a volunteer, a definite plan of awards is essential. If each volunteer in her daily contacts can be assured that those employees whose work she supplements feel that she is giving essential service to the hospital then the volunteer is adequately compensated. Specific awards, however, such as the pin which is given by certain hospitals in Boston for one hundred hours of service within

twelve months, the service stripes such as Red Cross gives, or a volunteer service honor roll will indicate concrete and acceptable recognition of the volunteer.

Those of us responsible for the care of patients in hospitals know that today many patients would be neglected were it not for our loyal trained volunteers, and as the manpower situation becomes increasingly acute we know that, in spite of the efforts of our overworked nurses, dietitians, technicians, and other employees, proper care of the patient will be a reality only because of the interest and self-sacrifice of one of the great products of World War II—the professional volunteer.

3. Thirteen Directors Say "Organization" Is Key, by *Pauline L. Lehrburger**

THE directors of volunteers in thirteen hospitals of Greater Boston have distilled out of their practical experience a statement of basic principles in organizing volunteer service in a hospital.

For more than five years Boston's directors of hospital volunteers have been meeting regularly to discuss their problems. During this time their number has increased from six to thirteen, as the value of organized volunteer service rapidly gained wider recognition.

Recently, with increasing frequency, they were being consulted by other hospitals on methods of setting up volunteer service, and they wished to speak with more authority than that of individual experience. They believed that if they could agree on fundamental principles and methods their conclusions would be valuable to themselves and helpful to others.

Accordingly a questionnaire was prepared and sent to each director of volunteers, who was asked for opinions on the way in which hospital volunteer service

should be organized and administered, with the understanding that such views need not be in agreement with actual practice. The initial unanimity in the replies was startling, and the few seemingly divergent opinions were easily reconciled. The final result therefore represents the common denominator of their thinking and experience.

A summary of the consensus follows:

Volunteer service should be organized as a department of the hospital, under a director of volunteers. The following principles are basic:

1. The director of volunteers should be a member of the administrative staff with the status of department head.
2. This position constitutes a full-time job, except where the services to be organized and conducted are very limited in extent and are active through only part of the day.
3. The position should carry a salary.

* Adapted from *Hospitals* 18:41-42, Feb. 1944.

A director of volunteers cannot otherwise have the status of a department head.

4. The relationship of the director to other heads of departments and to the administrator should be the usual relationship in such cases.

The director should have the over-all responsibility for all non-medical volunteer service in the hospital. Members of such special service units as Red Cross nurse's aides, Gray Ladies, and the men's volunteer corps should be responsible to the director of volunteers as well as to their own chairmen or leaders, as should women's committees and other groups associated with the hospital.

The duties of a director of volunteers include:

Planning. A primary duty is to plan. In establishing a new volunteer service where and how volunteers are to be used. organization she should work with the administration on a general plan of the needs for volunteers and the types of services they will undertake, and should plan with the heads of departments exactly how the volunteers are to be used, making an analysis of every type of position to be filled. Such a job analysis should specify the exact duties to be performed; the hours of service, training, and general qualifications required; and the number of volunteers to fill the need. It is essential that such initial planning precede the recruiting or assignment of volunteers.

In an established volunteer organization the director should, from time to time, review the current services with department heads in order that improvements or revisions may be made. All requests for new services should be cleared by the director with the administrator of the hospital.

Recruiting. The director should have the responsibility for recruiting volunteers to meet the needs of the hospital and

should make full use of the assistance of any unit already existing in the community for the enrollment and placement of volunteers. In many communities there is a central volunteer bureau operated under social agency auspices, or, at the present time, in the local civilian defense volunteer office. The Red Cross should be called on for such needs as its established services can fill. Other resources are schools and colleges, organized women's groups and men's groups, and the community at large.

Interviewing and Placement. The director should be responsible for selecting and placing all volunteers. A possible exception might be the trained Red Cross nurse's aides, who would be interviewed by the nursing service, but it is desirable that the director have early and frequent contact with nurse's aides as with all volunteers, so they may feel that they are a part of the volunteer organization.

Supervision. The director should be responsible for seeing that all volunteers are adequately supervised, either giving this supervision personally, arranging it through the heads of departments where volunteers serve, or delegating supervision to an appointee.

Training. The director should see that all volunteers are trained for their assignments, arranging the necessary training either in the form of instruction "on the job" or through courses, lectures, and conferences.

Building Morale. Building morale and high standards of service is a special responsibility of the director of volunteers, who should (a) plan for recognizing length of service through such devices as service badges, pins, certificates, and honor rolls; (b) plan for a simple uniform to be worn in the hospital with identifying volunteer service insignia; (c) establish good

relationships between volunteers and paid and professional staffs by interpreting to these staffs the need and purpose of volunteer service; (d) handle problems of discipline, and deal with any difficulties arising between volunteers or between volunteers and others; (e) promote volunteer esprit de corps through meetings, conferences, special programs, and occasional social gatherings.

Maintaining Continuity of Service. It is the duty of the director of volunteers to maintain continuity of service even though there may not be continuity of personnel. This problem is inherent in volunteer service because a single job may be carried by several different people, and because the incidence of volunteer ab-

sence is higher than among paid employees. It should receive the unremitting attention of the director.

Records. The director of volunteers should keep records of each volunteer worker, including the application or interview form, assignments to work, hours of service given, and rating as to quality of service. She should also keep general records of the department, including a daily record of hours given, as drawn from daily time sheets on which volunteers sign time of arrival and departure, and other daily and monthly data.

The director of volunteers should be mature and have understanding of people, an even temperament, patience, tact, adaptability, and objectivity.

4. Hospitals Join with Michigan Schools in Health Course, by *Genevieve R. Soller and Gordon Davis**

ONE thousand senior high school girls in Michigan who were enrolled this past semester in the Community Health Service Course absorbed knowledge about healthful living which will serve them well in the future. At the same time they made a substantial contribution to the war effort. Harassed hospital administrators, faced by the acute problem of finding enough help to keep the doors open, say that these enthusiastic and energetic young ladies are an answer to a prayer.

The project as developed has put into practice concepts and techniques of the classroom instruction. Local health agencies served as laboratories for observation and practice of that which had been learned. Hospitals contributed greatly to this learning experience, because of their equipment, resources, and highly trained personnel. Through the coordination of the classroom procedures with that of the hospital experimental laboratory, the stu-

dent was able to put into immediate practice the theoretical aspects of health service. In other words, "by doing" the information acquired in the classroom was not remote from practical application.

In the one semester since the course has been started, it has stimulated nation-wide interest, invaded many homes, and altered a number of careers. Furthermore, it has provided the services of competent and well-trained volunteers to hard-pressed hospitals.

The purpose of the course has been to give to senior high school girls health information, both academic and practical, and to develop attitudes, interests, and

* Adapted from *Hospitals* 17:16-19, July 1943.

The project described in this article represents a wartime effort in health education, which terminated on Aug. 31, 1946. Since the initiation of the project, health education has become a responsibility of general education in Michigan high schools, and the trend is now away from special classes.—Georgia Hood, Health Education Consultant, Michigan Dept. of Health.

practices conducive to effective preparation for a profession, for industry, for military service, or for homemaking. It is probable that the course content is not new, but the utilization of community resources, especially the hospital, has added a new emphasis and proved invaluable.

The students of each of the twenty-eight participating high schools heard discussions and explanations of everything from personal and community health to the making and sterilization of gauze dressings for use in the home. They learned the "reasons why" behind health, the general and detailed logic of the health activities they subsequently saw in action. Information so clearly related to everyday living has profound appeal.

Take for example the class in the high school at Rochester, Michigan, which may be chosen as more or less typical. Certainly the twenty-five Rochester misses who embarked upon the experiment are as representative of feminine young America as any.

Some were sheer idealists. They knew they wanted to become nurses because, quite genuinely, a career of service to suffering humanity held for them a deep appeal. They saw the new class as a start.

Some were curious, like the girl who confessed that "nursing is one type of work in which I have never been particularly interested; in fact, I have always had somewhat of a dislike for hospitals. My main reason for enrolling was curiosity. . . ."

And there were those who came in to be with friends, to escape indecision over electives, or to serve certain ends usually treated by responsible elders with disapproving frowns.

"At the beginning of the semester," explained one candid miss, "there was a grand rush for credits and snap courses—

you know the kind, with no work and all play."

This sweetly innocent candidate was in for the shock of her life. She has borne it nobly and—believe it—become an eager convert to work. Plainly, the course had to have something to make apostates of disciples of laziness. What it had was a lot of information and experience that makes sense to high school youth.

An hour a day in the classroom and an equal amount of time for "practice and observation" was the time requirement of the course. The teaching was done by a classroom teacher and a nurse consultant.

It is likely that most of the pupils did not know fully at the start what they were letting themselves in for. They thought in general that they were going to learn something about hospitals and nursing, with actual trips behind the scenes, and indeed this portion of the program was fundamental.

Health seems a simple matter to a young woman of seventeen. "It's something you have, so why worry about it?" To her the bewildering variety of practices, institutions, agencies, and activities which are knit into the whole of health—and which the course was specifically designed to correlate and clarify—are remote and perhaps even a little occult.

Early each Saturday morning throughout the school term, a chartered bus transported the Rochester students to St. Joseph's Mercy Hospital in Pontiac, a dozen miles away. At the hospital they changed into neat and freshly starched uniforms of their own creation. A brief class period was devoted largely to outlining the day's work and to questions; then they scattered to their assigned tasks.

They worked, of course, under the watchful surveillance of nurses and supervisors. Miss Ruth Jubb, their teacher

and nurse consultant, spent her day making the rounds from one group of girls to the next. They performed such tasks as answering lights, folding linen, repairing rubber gloves, making empty beds, running errands, and helping prepare trays and feeding patients. Special circumstances also allowed this class to undertake duties which other groups did not attempt, but the flexibility of the program allows full adjustment to the individual hospital's needs and desires.

Unquestionably the Rochester girls were more valuable and more enthusiastic because of their basic understanding. They had heard about these activities in the classroom. Now they were seeing them and sharing in them in real life.

Uniformly favorable reports have come from hospitals throughout Michigan where the Community Health Service students have worked. From this standpoint alone the project has been worth while. The patients liked the students. The nurses and supervisors liked them. The hospital authorities said emphatically that "it would be hard to get along without them now."

Services rendered by the students of the Community Health Service Course did not stop with the hospital, but were extended into other phases of community life. In one town the classroom analysis of sanitation led the students to look about them, and their newly informed scrutiny landed unerringly on a trailer camp in which conditions were notably short of ideal. The camp presented a model opportunity to practice what had been preached. Obtaining a copy of state law covering health nuisances, the girls went before the town council and lobbied persuasively. Promptly the trailer camp was cleaned up.

Again, the sanitation of food handling

occupied the attention of another class. A committee of students was appointed, a public health nurse was recruited as counsellor, and the inspection and rating of local food-handling establishments were under way. The girls made no secret of what they learned about individual bakeries and restaurants. Their campaign was irresistible and proprietors of substandard establishments had no alternative but to improve.

Visits to and work in health departments, clinics, blood banks, nursery schools were part of the Community Health Service curriculum. Many of the girls became so interested that they devoted a considerable amount of time above that for which they received school credit to serve in the community health enterprises.

But the real intent of the project was not to make health specialists of the young women. It was designed to give them the knowledge that would make better wives, mothers, and citizens in future years. If they chose nursing as their careers in the process of learning about health—as 175 of them did—that was all to the good, but it was more or less incidental.

You could hardly keep them from personal application of their new knowledge, anyway. As part of the course they learned to take height and weight, to test visual acuity and hearing. They kept track of their individual health gains during the semester. Some even sought the help of a psychologist.

Because of their new interest, the students often found they were not individually as healthy as they had thought. A number of physical ailments, ranging from visual defects to tuberculosis, were found. And, as always, the education of youngsters meant education of the parents too.

The Community Health Service Project

has been under the guidance of a representative committee selected by the Michigan Department of Public Instruction, State Department of Health, and State Board of Control for Vocational Education.

Teachers and nurse consultants of the schools participating in the project were provided with suggested outlines. The content of the outline was to be adapted to meet the needs of each community. The various proposed "units" of study presented broad opportunities.

In part, they were: (1) analysis of local health problems, (2) individual health needs, (3) health practices, from posture to nutrition, (4) home influences on health, including family relationships and heredity, (5) when illness comes—the sickroom, selecting the doctor, care of the patient, diets for the sick, etc., (6) family health, including maternal, infant, and child, (7) school health, (8) community health, (9) contribution to community health through service, (10) nursing, a profession.

With objectives and the outline set forth, the offer of the new course was accepted by twenty-eight Michigan high schools for the first semester in 1943, and one thousand senior girls were enrolled. Almost all of the classes were taught by regular teachers—teachers of home economics, physical education, and even English and foreign languages—with the services of a nurse consultant.

The Rochester High School was an exception, as the teacher was also a registered nurse. However, the general success of the first semester indicates that the requirement for teachers with adequate background and genuine interest was met in full.

This is what Lon Babcock, assistant

principal of Highland Park High School, has to say about it:

"We started out this course with three sections, the third being added by popular demand. The interest in the course has increased during the semester. I have talked individually with many of the girls who are taking this work, and they are most enthusiastic about it. I feel that a definite contribution to the curriculum has been made, and predict that the course will be increasingly popular as time passes. Several mothers have talked with me about the work. One, the wife of one of the leading doctors at Henry Ford Hospital, thinks it is the finest course her daughter has ever taken. The daughter is an excellent student who is preparing for Vassar College. This is significant evaluation by an intelligent person."

Perhaps the quickest way to evaluate the course from an educational standpoint is to ask what will happen to it now, with one semester's experience behind it. The answer is in the interest aroused throughout the state. At last reports, and with applications still coming in, more than two hundred Michigan high schools have requested the opportunity to introduce Community Health Service as a regular course next fall.

A sound basic idea, good planning, and splendid leadership can be given the credit for this heartwarming success. Certainly, too, the experiment could not have been scientifically complete without the grant from the Kellogg Foundation. The grant paid the project workers, including the nurse consultants to the individual classes in the twenty-eight participating high schools. It enabled two conferences, one of the teachers only and one of both teachers and nurses, and it provided supplies.

Completion of the original experiment will not come until effects have been assessed in detail. An evaluation committee will study the project and issue formal findings.

Meanwhile, there seems to be nothing to prevent similar programs in states or individual communities outside Michigan. They might be started by hospital admin-

istrators, school superintendents, or others interested in a program promising great good both to students and to the community. The American Hospital Association is preparing a bulletin for distribution to interested hospitals and the Department of Public Instruction, Lansing, will supply additional details to interested schools, hospitals and other health agencies.

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PART FIVE

CHAPTER XXXI. GROUP HOSPITAL AND HEALTH INSURANCE

1. One Health Insurance Agency, the Government; Part One of a Discussion, *by A. J. Altmeyer**

IF we are to work out sound plans for the hospital services of this country, we must see our present and future problems in proper perspective and we must see them whole.

We can be confident that in the future, even more than in the past, the hospital will be the center of coordinated services for the well and for the sick, a community center for prevention as well as for diagnosis and cure. Coordinated with clinics and health centers for those who do not need bed care, working in effective relations with the community-wide facilities of the public health agencies, and interlocked with the educational institutions of the universities and medical schools, the hospital of today is the health center of the future. There are new and larger opportunities ahead for the hospital administrator.

Those who would make of the hospital a building in which to furnish bed, board, nursing, and only technical services, and who propose to separate professional services from hospital care, are flying in the face of experience and progress. They would not merely stop the clock; they would turn it back. Their view cannot and should not prevail.

Assurance of hospital facilities and access to hospital services are essential for progress in improving the health and well-being of our population. This means that the facilities not only must be available in the community, but also must be so financed that all members of the commu-

nity can receive service according to their need and not merely according to their ability to pay. The goal is health security for all.

In many communities, financing the continued operation of general hospitals has been a less dramatic but a more difficult and more persistent problem than raising the construction funds. In many communities which lack hospitals or are inadequately equipped, the capital funds are more or less readily found as soon as means are in sight to support the institution and the professional personnel.

Nobody wants to sink capital into the construction of hospitals destined to remain empty for lack of operating funds because the community lacks fiscal resources and the potential patients are too poor to pay the costs. The expansion and improvement of general hospital care depends upon effective means of financing the operating costs. This is especially true for the voluntary hospitals.

I do not need to analyze at any length the real difficulty which people meet in paying for hospital care. The basic trouble is not that hospital charges are higher than they should be; on the contrary, there are too many communities in which those charges are lower than they should be if the hospitals are to give all necessary services and are to pay their staffs the salaries and wages they deserve.

It is not that the public undervalues the

* Adapted from *Hospitals* 17:37-40, Oct. 1943.

money value of hospital care; on the contrary, the public has great confidence in the modern hospital, witness the progressive increase in use of the hospital. The basic difficulties are of other kinds.

Hospitalization usually comes unexpectedly; the costs of a hospitalized illness are relatively large by comparison with current or accumulated financial resources; people have not budgeted ahead such serious or catastrophic costs; and the whole cost of hospital care as a potential community service falls upon the one family in four or five which in the course of a year uses hospital service.

It is now widely accepted, in and outside hospital circles, that the costs of hospital care must be distributed among groups of people and over periods of time. Distribution of costs means insurance and it is already widely practiced in the case of hospital costs.

Despite strong opposition, your Association courageously sponsored this movement, gave professional guidance to assure the soundness of nonprofit plans, and gave confidence and reassurance to the public by your seal of approval on plans which meet the standards of the Blue Cross symbol. There are others who meet hospital charges through commercial indemnity insurance. The size of this group is difficult to estimate, but it is substantial.

Your Association has also declared its policy, through formal resolutions, for expansion of the Blue Cross membership. National enrollment is your goal. But, as your own officers have so often emphasized, the real test is accomplishment and not good intentions.

Unfortunately, thus far the enrollment of the past decade has covered only the first 12,000,000—by and large the easiest 12,000,000. Ten times as many are outside

these voluntary prepayment plans. Indifference and lack of foresight are barriers which cannot be hurdled by voluntary selling.

Moreover, the distribution of income and of ability to pay set limits upon the success of voluntary insurance. These limits have always circumvented the larger objectives, leaving those who are most in need of protection without the benefit of insurance.

Both the public and the hospitals need an insurance coverage which extends to all. The only practical method is financing through social insurance. Fortunately, we have already made a substantial beginning in the development of our social security program, we have accumulated considerable experience, and we have the basic administrative machinery in actual operation.

Large portions of the public have already indicated, in various ways, not only their interest in extending the coverage of the social insurance system but in extending the scope of its protection to hospitalization and medical services. In the most recent of various polls on this subject, the American Institute of Public Opinion asked the following question:

"At present the social security program provides benefits for old age, death and unemployment. Would you favor changing the program to include payment of benefits for sickness, disability, doctor and hospital bills?"

Mr. Gallup reports that 59 per cent answer *yes*; 29 per cent answer *no*; and 12 per cent are *undecided*. He also asked: "Would you be willing to pay 6 per cent of your salary or wages in order to make this program possible?" It will be noted that this second question does not make it clear whether the 6 per cent would cover the en-

tire program and not merely the additional benefits. Nevertheless, of those who approved the program and expressed an opinion, 80 per cent answered *yes* they would be willing to pay 6 per cent.

The present social security program, as you know, is already broad in its scope. Now that its operations are well along, the President and the Social Security Board have recommended a number of changes which would greatly strengthen it.

The principal proposals which would especially interest you are: that the coverage of the old-age and survivors insurance system be extended to the groups hitherto excluded, and that the insurance protection should apply not only to old age and the death of the bread-winner, but also to ill-health; and that the limited public assistance programs be extended to provide aid to the states for needy people who are not within the limited categories now aided, and that medical and hospital services for needy people be aided by federal funds when expenditures for these purposes are made direct to those who furnish the services.

Many of us believe that the sound plan is to develop a single, national, contributory social insurance for all the people, giving simultaneously protection against unemployment, sickness, disability, death, and old age. The Wagner-Murray and the Wagner-Murray-Dingell bills, recently introduced in Congress, propose developments to the same general effect. In addition to hospitalization benefits, they include the services of general practitioners and specialists, and laboratory and related services for nonhospitalized patients.

These bills are sponsored and strongly endorsed by the principal labor organizations, which have declared that the wage earners of the country are ready to pay

their share of the costs involved in comprehensive social insurance.

In our own studies of hospitalization benefits to be provided through social insurance, we have had the advice of leading hospital authorities and we have had some conferences with committees of your Association.

From those discussions it is generally recognized that a service benefit would be best for the public and for the general hospitals. The basic arrangement would be that the insured workers and their dependents would receive care from any qualified hospital in the same way as now, on the advice of the attending physician.

For the essential services rendered, the hospital would bill the insurance system instead of the patient. The insurance fund would pay the hospital at an agreed per diem rate. Such rates for hospitals might be guaranteed at not less than a minimum or more than a maximum amount, depending upon the cost of providing service.

There would have to be, at least at the outset, a maximum limit on the hospital stay which is reimbursable; but with actual experience it might be possible to greatly extend or even abolish such a limit. Appropriate modifications in a standard range of rates could apply to special hospitals, institutions for the chronic sick, etc.

All qualified hospitals, whether governmental, voluntary, or proprietary would be eligible to participate. Reasonable standards to be met by the hospitals could be developed with the advice of an advisory council which should include competent representatives of the hospitals and professions. Whether rates of payment to hospitals should be according to individual hospital costs or should be uniform

for all hospitals in a community, presents a question which needs further examination with hospital people.

It is estimated that an adequate system of hospitalization benefits, designed along these general lines, could be financed for contributions of about one per cent of the earnings (up to \$3,000 in a year) of the workers who would be covered by the social insurance system. At the present time, when wages and employment are high, a one per cent contribution rate—for the coverage which is proposed—amounts to about \$900,000,000 a year.

By comparison, it is estimated that the total annual income of all nonfederal general and special hospitals is now about \$600,000,000. It is therefore safe to estimate that even in much less prosperous periods than the present, the social insurance system could have available each year for disbursement to the hospitals an amount at least as large as, and probably considerably larger than, the usual income of general and special hospitals.

With the continuance of even a moderate level of prosperity, the hospitals could be assured fair and reasonable income for services rendered to all or nearly all of the population. They could look forward to financial support which assures them a new opportunity for making further improvements in quality of care and in payments for staff, supplies, and equipment.

A relatively modest contingency reserve would be sufficient to assure that rates of payments to hospitals from the insurance fund would not need to be adjusted frequently. The rates should, however, be subject to review and, if necessary, subject to adjustment every few years so that equitable relations are maintained.

Utilizing the existing collection and record machinery, additional government

administrative costs should not be more than 5 per cent of the disbursements to hospitals, or one-third to one-half the operating costs of the Blue Cross Plans.

As an alternative to providing a service benefit of the kind I have outlined, the social insurance system could furnish a cash benefit. Under such an arrangement, the insurance fund would pay an insured worker or his dependent a specified amount of money for each day of hospitalization. If this had to be a uniform amount, it would presumably have to be a minimal amount in relation to hospital charges.

With a cash benefit there would be no direct relation between the insurance system and the hospitals; the arrangements would be between the insurance system and the insured persons who would be able to obtain their cash benefits upon presentation of evidence that they had been hospitalized.

It seems to me that the service benefit would be best for the public and best for the hospitals, provided satisfactory arrangements can be worked out on the methods of paying hospitals from the insurance fund. I do not see any reason why this problem cannot be solved, to the mutual satisfaction of the hospitals and the social insurance administrators, through a simple reporting system.

There are, of course, various ways in which parts of the service benefit pattern can be combined with some aspects of the cash payment. It may be possible to work out a plan which will have many advantages of each while avoiding some of their disadvantages.

So much for the insurance proposals. I would like to say a few words concerning hospitalization provisions for needy persons. At present, the Social Security Act limits the federal grants-in-aid which are

available toward state public assistance programs to 50 per cent reimbursements of money payments to the needy aged, the blind, and dependent children.

The federal funds are not available to reimburse direct expenditures made by the state or local authorities, except for necessary administrative expenses. This has not worked altogether satisfactorily with respect to medical or hospital expenditures; the nature of these expenditures is such that if the state funds are to be used most effectively they should be available for use both as money payments direct to the needy persons and as direct payments to those who furnish medical or hospital services.

The Social Security Board has already recommended amendment of the law to authorize federal matching of direct payments for these types of services and we hope Congress will enact such an amendment.

From the outset, I have given large emphasis to the central role of the hospital in the health and medical services of the future. By the same token, I have given emphasis to the potential role of the voluntary hospitals.

These institutions have been the mainstay of general hospital service, more so in this country than elsewhere. They have been and are a notable expression of community action and community service, a symbol of fellowship and compassion among our people. They have deep roots in the life of our society and we can all unite in helping to nourish and support them.

The voluntary hospitals have a major function to perform, side by side with governmental and proprietary hospitals.

The social insurance proposals for hospitalization benefits offer no threat to the voluntary hospitals. On the contrary, by

offering a new assurance of income, these proposals would give renewed strength to all the hospitals and enlarged opportunity for community service.

There is nothing in the proposals which proposes or intends that the social insurance system shall interfere with hospital operations or invade the field of hospital administration properly reserved to the individual institution.

The best assurance we can give that fears about the future of voluntary hospitals will remain groundless is again to invite the active participation of hospital people in the development of the social insurance plans.

I have spoken with confidence and without hesitation about the assurances which I believe can be given the hospitals that the proposed social insurance developments will strengthen and not injure them. As regards the effects of the proposals on the Blue Cross Plans, I hope it will be possible to work out arrangements which will assure that minimum essential services will be the benefits of the social insurance system, and that services above and beyond that level will be an active field for supplementary voluntary insurance. This, it seems to me, is the sound and logical plan.

Social insurance and voluntary insurance should complement each other, both working in the public interest. We have extended invitations to Blue Cross officials to participate in joint studies in this area so as to enable us to reach more definite conclusions.

You and we have been told that any social insurance proposals are bad because they endanger the Blue Cross Plans: that nothing should be done through social insurance until the Blue Cross Plans have had a full opportunity to demonstrate what they can do through voluntary

means toward insuring all or most of the national population.

Nearly a year has elapsed since the House of Delegates of your Association adopted the Bishop Resolution, requesting the Trustees to take various steps toward expanding the operations and coverage of the Blue Cross Plans. Many of you have recognized that the rapid early growth of the Blue Cross membership, when new plans were being established in many communities, might not be sustained.

As of the beginning of 1943, the membership in Blue Cross Plans was about 11,000,000, or 8 per cent of the population. The growth in Blue Cross Plans at the present time represents a net increase of about 200,000 members a month or 2,400,000 a year. This is a considerable growth expressed in absolute figures but is equal to an annual growth of less than 2 per cent of the population.

At this annual rate of increase, how many years should elapse before a decision is made that something should be done for 8 or 9 persons out of each 10 in the country who are not insured against the costs of hospital care and who can be given protection through a national social insurance system?

May I emphasize again the distinction which should be drawn between the problems to be solved with the hospitals and the problems to be solved with the prepayment plans. They are not unrelated; but neither are they the same.

It has been suggested that the proposals to extend hospitalization insurance to the great majority of the population be laid aside for the present, and that, instead, federal aid should assist in providing hospital care for the aged poor. I have already referred to the recommendation we have made which would improve the financing

of hospital and medical services for all needy persons. But surely it must be clear that this is no substitute for providing insurance to the population above the level of the needy. The insurance needs of 100,000,000 to 125,000,000 self-supporting persons are not to be met by improving the provisions for a few million who are needy.

I would not leave you with the impression that we think the social insurance proposals would solve all problems in the hospital field or that we believe all the problems are easy to solve. I might mention the need to work out plans for assuring the availability of capital funds—whether through grants or loans—for the construction of needed hospitals in areas where the facilities are altogether lacking or are inadequate and where the money may not be available from local or state resources.

I might refer to the need for a simplified and satisfactory method of using cost accounting as a basis for per diem rates of reimbursement. And I might also refer to the need to re-study the principles developed by the joint committee of your Association and the American Public Welfare Association.

I believe, however, that these and many other important problems can be met through fair, reasonable, and practical solutions by our working together.

In closing, I express to the American Hospital Association the thanks of the Social Security Board for the cooperation you have already given us in studying social insurance plans for hospitalization benefits. Again I extend our cordial invitation for continued joint study and for collaboration in the development of sound and useful plans to be considered by Congress.

2. Let Government Help, Not Kill, the Voluntary Plan; Part Two of a Discussion,
by E. A. van Steenwyk*

EVER since the first announcement of the Social Security Board proposal regarding hospital insurance, everyone in the hospital and Blue Cross field has been interested to see the promised development of the ideas then tentatively suggested. Each time the subject has been discussed publicly or in joint meetings of hospital plans and government representatives, we have looked for some modifications of these ideas.

A. J. Altmeyer has again said what we knew two years ago, that the Social Security Board would like to introduce compulsory hospital insurance, that maybe such insurance would provide service benefits, that it might provide a daily cash allowance to the taxpayers, and that the Social Security Board will discuss how it uses the funds derived after the system is in effect.

Discussions on the future of hospital financing for American people are not new to the hospital field. For the past ten years almost all American Hospital Association meetings have included general discussions, under many different headings, on this same subject.

Some among us have hoped that Blue Cross would stem the tide of government interference in providing health care for all Americans, but Blue Cross by itself will not prevent government participation. That was the meaning of the Bishop Resolution last year. Only as the plans are backed up by the hospitals and their subscribers will they become a defense against the trend of governmental dominance.

The great majority of us would agree with Mr. Altmeyer and his colleagues that some kind of additional federal aid in providing hospital care to the people of

America is desirable. But this does not lessen the need for careful planning of voluntary agencies. It increases this need. All of the good that can be found in the present system ought to be continued uninterrupted and undiminished.

This does not mean either that we should consider that the job of providing hospital care to American people has been accomplished once a pronouncement of the people's needs and how they shall be met has been made by the Social Security Board. Hospitals and plans have listened in vain for practical suggestions on cooperation from the Social Security Board. If voluntary agency cooperation with the federal government is needed on this job, it is only reasonable that voluntary agencies do their share of the planning.

While certain needs point to more governmental participation, it is also agreed by everyone that the Federal Government should not undertake to do what the people themselves without government can do. Our own national experience is overwhelmingly against the development of federal authorities where not necessary.

The counterpart of Jefferson's comment, "I am not a friend to a very energetic government. It is always oppressive," can be found in the counsel of almost every wise man with knowledge about government and social forces. If the people themselves can do the job by voluntary means, incalculable gains for public welfare will result.

It is also generally agreed that certain kinds of hospital care are by tradition the responsibility of the government. The care of veterans, the chronic sick, those suffering from mental and other disorders

* Adapted from *Hospitals* 17:41-44, Oct. 1943.

which require custodial care is acknowledged to be the responsibility of government either on a local, state, or federal basis.

Many other points of agreement on general policies and interpretations of facts as they relate to financing could be enumerated. The controversy as between those favoring financing on a federal compulsory insurance and a voluntary system is on methods. How best shall America make hospital care a matter of right for every citizen, yet adequately finance the cost of such service? How can we protect the values of high standards of service, necessary costs, local control, and management, yet continue to make hospital care readily available for everyone without regard to his current financial position?

This disagreement on how hospital care should be provided to the American people rests upon different judgments as to the type and scope of the financial problem now before people and hospitals. Government spokesmen insist that the hospital finance situation is acute for the individual and that immediate, revolutionary tactics must be employed. For them, only the police power of the government will protect us from chaos. Those who believe that voluntary plans working with hospitals can meet most of the problems hold that the situation does not require drastic action—that evolutionary methods may be effectively employed.

If it can be said that public gains under a voluntary system are worth the extra struggle, every constructive effort leading to the most effective use of voluntary agencies should be made before resorting to a federal compulsory law. It is not sufficient to assure the country that everything will come out all right if you take a deep breath and let federal agencies handle the situation.

What are the facts about hospital finance and about the availability of hospital service to all citizens? Where are the inadequacies? What are the strong points of our present system? What needs changing? Does the entire present system need to be scrapped and another take its place? Do the inadequacies require compulsory health insurance on a federal basis?

For instance, what are the facts about present hospital financing? The present income to registered general and special hospitals, excluding federal hospitals, is estimated at about \$600,000,000, of which \$65,000,000 comes from Blue Cross Plans. Approximately 62 per cent of this income comes from patients and 25 per cent from local and federal taxes; the remaining 13 per cent comes from gifts and voluntary subscriptions. Note that nearly 40 per cent of all the income to general and special hospitals comes from sources other than patients.

The return which the Social Security Board has estimated from a one per cent tax, whether this amount be \$600,000,000 or \$900,000,000 is to be used not for the general support of hospitals but for the payment of the hospital bills of 100,000,000 insured persons with rights to hospital care.

Hospitals are not going to receive what they now receive, and in addition receive the amount of the Social Security tax. Hospitals under the proposed plan will receive payment at from \$3 to \$6 a day as full payment for "essential" hospital service out of the funds collected from the taxpayers. Reserves and administrative costs under the federal plan will have the same relation to the insurance fund as under voluntary plans.

What part of the income now available to hospitals from sources other than patients will still be available to them after

compulsory insurance is in effect? Will county commissioners continue to make appropriations for the support of hospitals? Will cities or states feel that they have a responsibility for the financing of hospitals if a payroll tax, which presumably pays for hospital bills, is imposed upon every worker? Will community chests and other money collecting agencies feel that there is a useful purpose in continuing their effort to support hospitals? What part of the amount now paid by patients will continue to be paid by them?

It takes money to run a hospital. The cost of good hospital care is high, but it takes more than money to deliver hospital care. What about the ability of hospitals to meet public needs? If ever there was a demonstration of what voluntary agencies can do when the need is before them, it was the voluntary hospitals' response to the problem of providing care even though there was generally less money available during the period from 1932 to 1942. In 1933, for instance, 4,661 nongovernmental hospitals provided care to 4,882,444 patients and, though the number of nongovernmental hospitals had decreased slightly by 1942, the number of patients served during 1942 had increased to 8,535,935. A regular pattern of growth by years in the number of patients served may be observed from 1933 to 1942.

No one would deny that scientific analysis of the hospital facilities available in America reveals certain inadequacies in rural areas. It has also been assumed that certain heavily populated war industry areas are also inadequately supplied with hospital facilities. Yet both of these inadequacies can be met and are being met by the areas themselves with the assistance of voluntary and government agencies.

An example of this type of cooperative program may be seen in the hospital serv-

ing the government housing projects surrounding the Willow Run Bomber Plant. Physicians in charge of such hospitals pay a nominal rental for office space, but operate as private physicians in their relations to their patients.

The work of the Farm Security Administration in fostering the development of health associations among farmers, and of the farm bureaus and granges in developing health consciousness among their members, the generally helpful attitude of all three organizations in the enrollment of farm families in Blue Cross, coupled with the support which rural areas have been able to obtain through the operation of the Lanham Act, are all helping to solve the rural hospital problem. Extension of these programs and other public health approaches now under way have been encouraged by the American Hospital Association.

We must never lose sight of the emphasis which every health administrator places upon the necessity for local responsibility in meeting health needs. Health services are not different in this respect from any other service. To be of value a health service must be desired by those whom it will serve. The sympathetic understanding and creative imagination necessary to do a good job on the local level cannot be obtained by just ordering it done on a national basis. There is a vast difference between discussing problems and solving them.

It has been said, "Yes, Blue Cross is fine as far as it goes, but it doesn't go far enough." Yet Blue Cross Plans can become the means to satisfy the hospital needs of every citizen if we have the will to utilize them fully.

As a nation we have been satisfied to proceed cautiously on other phases of social security. Why, when Blue Cross is

steadily gaining and fulfillment of the purposes of a great voluntary system is within the grasp of American people, should we now shift our emphasis to a compulsory system? What is the hurry at this time?

The enrollment record of Blue Cross is not just a slight manifestation. Persons now covered by Blue Cross Plans number 12,500,000. An additional 5,000,000 are now covered under commercial hospital insurance plans—17,500,000 persons are now covered by nongovernmental hospital insurance. This accomplishment has been made without compulsion and the Blue Cross program is just getting into its stride.

It is true that 40,000,000 wage earners are now estimated to be protected under Federal Old Age and Unemployment Insurance, whereas the 17,500,000 under nongovernment hospital insurance include dependents. Even so, at the present time at least one-fourth of the number of civilian wage earners protected under old age and unemployment insurance have nongovernment hospital insurance.

Blue Cross Plans now operate in almost every area of our country. It is reliably estimated that 100,000,000 people have this service available at the present time if they want it and if they can pay for it. Voluntary hospitals with 80 per cent of all nongovernment beds are now members of these plans.

Increasingly the member hospitals and plan managements are realizing the goals which were set up some time ago to develop low-cost plans for those who cannot afford to pay for semiprivate facilities. In areas that have established low-cost plans, enrollment of from 40 to 75 per cent of the population has resulted. Several states have an enrollment of more

than 15 per cent of their population while plans in three states have enrolled nearly a quarter of the population. What can be done in one place can be done in others.

To say because Blue Cross enrolled two and one-half million last year that the rate of growth will remain at this level, is against all human experience. There is no reason to assume that if voluntary hospitals fully support Blue Cross Plans they cannot enroll all wage earners who might reasonably be expected to pay all of their hospital bills.

If the Federal Government will then provide grants-in-aid to states, making it possible for the states to subsidize the enrollment of those less able to pay, all of the gains which a federal compulsory plan might obtain in coverage may be blended with the gains of voluntary management and control. No, the argument that Blue Cross is fine but that it does not go far enough has not much merit.

Mr. Altmeyer's assumption that supplementary hospital insurance will be a useful activity for Blue Cross after compulsory insurance is in effect is perhaps based on the experience of life insurance companies in the sale of annuity contracts. The sale of such contracts was encouraged after the adoption of old age insurance under social security laws but while social security taxpayers may desire funds in addition to those provided under old age benefit plan as annuities, they need no such additional hospital insurance because the bills sponsored by the Social Security Board have contemplated providing all "essential hospital services."

Is hospital care in America a good product? Again, objective testimony from many sources indicates that the quality and quantity of hospital care in America is superior to any country in the world.

What makes a superior product? Is it money alone? Or the genius of the human spirit? Isn't the superior product usually the result of a blending of many factors, chief among them, however, responsibility at a local level?

Blue Cross Plans through their commission office have already arranged for reciprocal relations on enrollment. A plan member moving from any area may be transferred without loss of rights previously established. Service benefits for all subscribers while away from home will be accomplished soon. Many other advantages of a coordinate and uniform program are being developed. The encouragement of local Blue Cross Plans all over the nation will heighten the self-reliant character of local communities, bringing many new benefits to hospitals and citizens, which will be reflected in better service and ultimate savings.

The conclusion that compulsory hospital insurance involving the entire population will require the Federal Government to own the hospitals and hire the personnel is inescapable. Prudence in public management has no alternative. The hope dangled before hospitals and the public that they can have a compulsory system and still maintain the flexibility, economy, and efficiency of voluntary local organizations is futile.

Under the present system of voluntary effort, the hospitals of this country provide the most complete hospital care in the world, and a quality of service higher than ever attained in a nation with a compulsory program. The American Hospital Association recognizes the importance of adequate hospital service to the American public, and its thought and leadership are being directed to reaching this objective by voluntary means. The choice be-

fore hospitals and the people narrows down to what kind of a life they desire.

The attitude of Social Security Board officials has always suggested that any voluntary approach was by its nature only necessary ground breaking before the establishment of a governmental plan. This position has a place in our thinking, but it should be remembered that much of American life is without historic precedent. Indeed, as has often been pointed out by government officials, to the rest of the world this is America's strength. What do we need? How can we go about doing what needs to be done, utilizing the cooperation of government to the fullest extent yet preserving the essence of our voluntary system?

Nursing needed governmental assistance, and the Bolton Bill resulted in a sensible program of cooperation between hospital nursing schools, students, and the Federal Government.

The need for providing hospital care to the aged poor could be similarly met by voluntary agencies with governmental cooperation. Such a program, if initiated by the American Hospital Association, might also be welcomed by Congress. This would solve one of the most difficult current hospital problems without introducing compulsory health insurance.

Areas needing hospital facilities could be assisted by the government without compulsory health insurance. Defense areas are now receiving such assistance. Neither of these problems is staggering in its economic implications.

Government employees could be given the same convenience of payroll deduction for Blue Cross that other employed groups receive.

Experimentation could be started which for the low-income groups would blend

the purposes and aims of the Social Security Board with the program of the Blue Cross Plans. Such cooperative arrangements have already been initiated by the Farm Security Administration working with Blue Cross.

There is no reason why a program of grants-in-aid to states could not be worked out. Close integration of nonprofit plans with the government on these problems is entirely possible if there is good faith in the constantly reiterated proffer of cooperation on the part of the government. A positive program including these points if brought to Congress by the hospitals would probably find Congress sympathetic and willing to cooperate.

The men returning from the war will be changed in some ways. They will have a wider experience, but fundamentally they will be the same men as when they left. Just because there is an acknowledged need for health insurance in the postwar period is no reason for assuming that this need must be met on a federal compulsory basis.

Voluntary hospitals and voluntary plans must have faith in their future and the courage to fully utilize all of the strengths in the voluntary system. Their methods will take longer but are sounder. The die is cast once a compulsory system is under way. There is no turning back. We cannot "just try out" such a plan first to see if it will work as planned on paper. The values with which we are dealing do not remain constant without careful attention to every detail which is the job of the local hospital.

At the end of the first year of the St. Paul Hospital Service Association, 3,625 subscribers had been enrolled. A luncheon was held for the fifty or sixty group leaders, the hospital superintendents, some government officials, representatives of the

local medical society, the officers and trustees of the plan, and the employed staff, which at that time consisted of three persons. It was called the "First Base Luncheon." Back of the small speakers' stand, a baseball diamond had been mounted on cardboard, showing 3,000 subscribers enrolled, just "leading off" to second. Home plate was represented as 12,000 subscribers.

If you had asked any of the persons present at the luncheon whether he expected an enrollment of 12,000, the answer would have been given to you confidently enough but not without misgivings. Twelve thousand seemed a large number to enroll. The scheme of organization, the beds available in the hospitals, the uncertain benefits at that time, all seemed reason enough for misgivings. Yet today this same plan has 540,000 subscribers enrolled.

When people ask me today whether I think Blue Cross will ever enroll 50,000,000 or 100,000,000 people in the United States, I cannot help but think of this experience. This kind of goal for Blue Cross Plans when they are well organized, with a superior product to sell, whose record for achievement in public service, economy, and efficiency is enviable, seems much less of a task and much easier to fulfill than the enrollment of 12,000 subscribers in St. Paul when only 3,000 had been enrolled.

The enrollment of the entire population through methods that will be devised in a concerted program of the Federal Government, the states, and voluntary plans, poses difficult problems, but they are not nearly as difficult as the problems we faced ten years ago. Mr. Altmeyer has said that the first 12,000,000 enrolled by Blue Cross Plans were the easiest to enroll. I don't believe this—they were the hardest to enroll.

3. The Place of Compulsion in Prepaid Health Care, *by N. W. Faxon, M.D.**

PREPAYMENT insurance for protection against the cost of sickness is generally accepted as sound. The hospital plans of Blue Cross, started little more than ten years ago, now operate in 42 states and the District of Columbia, which contain 95 per cent of the population, with almost 15 million subscribers. The medical plans of Blue Shield, started later, are now operating in 13 states which contain 50 per cent of the population.

Both are growing rapidly with subscribers from both urban and rural areas. Both are on a voluntary basis and are non-profit organizations operating under the direction of state insurance commissioners, but controlled by directors, a majority of whom are representatives of hospitals in the case of Blue Cross, and doctors in the case of Blue Shield. Thus both are directed by those most interested in the success and progress of these organizations.

There is not much use in proclaiming the virtues of something that is already accepted as admirable. Almost everybody agrees that Blue Cross and Blue Shield are good. But are they good enough? Many persons believe that they are sufficient to meet the need of a method of protection against hospital and medical costs and that they will gradually expand geographically to cover all parts of the United States, adding benefits to cover all medical needs. Admittedly, this will be a gradual evolutionary process, elastic enough to fit every area and every changing need.

Others say that voluntary plans dependent upon the volition of individuals will never adequately protect the community against sickness; that this is too slow in operation, pointing out that in ten years only 13 million out of a possible 80 million persons have availed themselves of Blue

Cross; that many who need protection will never avail themselves of it; that Blue Shield is too limited in benefits to give satisfactory protection, and that it will be necessary either to supplement voluntary plans with compulsory plans or, better still, replace these imperfect voluntary plans with a comprehensive, compulsory plan embodying medical care in the home, office, and hospital, plus such hospital care as is needed.

We are now called upon to face this problem of the comparative merits of voluntary and compulsory health insurance through the submission to Congress of the Wagner-Murray-Dingell bill which proposes such a system of compulsory health insurance as part of a unified national insurance system for the entire United States.

What is the Wagner-Murray-Dingell bill? To estimate intelligently the value of this bill—which incidentally will help us to decide upon the merits of voluntary and compulsory insurance—we must at least understand its essential provisions. Sufficient for the purpose of this discussion these are the important factors. The introduction is as follows (*italics and comments in parentheses mine*):

"To provide for the general welfare; to alleviate the economic hazards of old age, premature death, disability, sickness, unemployment and dependency; to amend and extend the provisions of the Social Security Act (*i.e., the present Act passed in 1935*); to establish a unified national social insurance system; to extend the coverage and to protect and extend the social security rights of individuals in the military service; (*they are not protected now*) to provide insurance benefits for workers permanently disabled; to establish a *fed-*

* Adapted from *Hospitals* 18:67-71, Aug. 1944.

eral system of unemployment compensation, temporary disability, and maternity benefits (*now under state control*); to establish a national system of public employment offices; to establish a *federal* system of medical and hospitalization benefits (*this is the item in which we are vitally interested*); to encourage and aid the advancement of knowledge and skill in the provision of health services and in the prevention of sickness, disability and premature death (*this is extension of public health services and financial assistance to medical schools and medical research*); to enable the several states to make more adequate provisions for the needy aged, the blind, dependent children, and other needy persons; to enable states to establish and maintain a comprehensive public assistance program; to amend the Internal Revenue Code."

Concerning the intent of this bill to improve living conditions in the United States and to make this a happier land, there can be no doubt and no opposition. Certainly this bill presents a fascinating blueprint of governmental paternalism, professing a most kindly interest in the economic welfare of its citizens and setting up an attractive medical and hospital structure to provide for care in sickness and to develop preventive measures.

The question is whether the method will accomplish the results desired. To determine this we must review the general principles underlying the operation of the provisions of the bill and then examine the specific measures of the bill itself.

We are concerned here primarily with the medical and hospital section. What are the essential points of the medical and hospital section?

Title IX provides that "Every individual who is currently insured and has been found by the board to be eligible for bene-

fits under this title in a current benefit year, shall be entitled to receive general medical (*i.e., medical care in home, office, or hospital*), special medical (*i.e., treatment by surgical and medical specialists in home, office, or hospital*), laboratory and hospitalization benefits." Moreover, all dependents of the insured receive the same benefits.

The administration of all this is placed under the surgeon general of the Public Health Service, who is authorized to negotiate agreements with appropriate agencies of the United States, or of any state or public or private agencies or with private persons to utilize their services and to pay fair, reasonable, and equitable compensation for such services (*i.e., he may select physicians, specialists, and hospitals*).

A national advisory medical and hospital council is set up with the surgeon general as chairman and sixteen members appointed by him from a panel of names submitted by professional and other agencies and organizations connected with medical services and education and with the operation of hospitals, and from other organizations informed on the need for or provision of medical, hospital, and related services and benefits. This council is authorized to *advise* the surgeon general.

All physicians legally qualified by a state shall be qualified to furnish services; that is, if they wish to and are accepted by the surgeon general. Every individual may select his physician from those accepted by the surgeon general, subject to the consent of the practitioner selected (*i.e., there is a free choice of physician*).

Specialists, however, shall be named by the surgeon general and their services shall "Ordinarily be available only upon the advice of the general practitioner."

A fee schedule shall be set up by the surgeon general, established on a per capita basis or a salary plan, or a combination of these. This places great power in the hands of the surgeon general. He may also limit the number of potential beneficiaries for whom a practitioner may undertake to furnish general medical benefits or distribute, if the per capita plan is used, on a pro rata basis among practitioners. Thus he can control the amount of work any doctor may do as regards this plan.

In a similar manner the surgeon general shall select participating hospitals. The bill fixes the amount that may be paid for hospital services, to be "Not less than \$3 and not more than \$6 per day for 30 days" and after that "Not less than \$1.50 nor more than \$4." Payments are made to beneficiaries who, however, *may assign* their benefits to hospitals.

These are the essential and important provisions of the bill as far as we are concerned.

What are the general premises and principles involved? What are the underlying needs for such a bill?

The Committee on the Cost of Medical Care in 1932 pointed out that there are four groups of people:

1. The rich and well-to-do who have ample resources to meet the costs of medical and hospital care, with incomes of \$5,000 or more. They form 9.2 per cent of the population.

2. The middle class, with incomes of \$2,000 to \$5,000, forming 35.5 per cent of the population. Voluntary plans have appealed to this group.

3. The wage-earning group, with incomes from \$1,000 to \$2,000, forming 41 per cent of the population. Proponents of compulsory insurance believe that this class will never take out much voluntary

insurance and must be compelled to protect itself through compulsory insurance.

4. The indigent—persons with incomes below \$1,000, forming 14 per cent of the population, many of them unemployable, who never will be able to contribute adequately to any plan and who must be assisted by welfare and given medical and hospital care at public expense.

The difference of opinion regarding the third group in the crux of the matter. Proponents of compulsory insurance feel that those in this group will never take out much voluntary insurance and must be compelled to protect themselves, and thereby the community, through compulsory insurance. Those favoring voluntary methods say that given adequate wages and time to acquaint themselves with the benefits of voluntary insurance and to understand it, these people will rise to the occasion.

They cite that most of the autos, electric refrigerators, radios, homes, and furniture are bought on an instalment plan, i.e., by budgeting, and that people who will voluntarily do this are also bright enough to see the advantages of prepayment health insurance. They also point out that there is an advantage to the community in the development of personal initiative of this sort, of which more later.

In rebuttal, the compulsory-minded say that maybe this would work with high wages, but what about depression periods? As far as the wage earners' contributions go, if they are out of work or are on mere subsistence wages neither plan will work, though the compulsory plan has advantages here since it has also the contribution of the employer and the possibility that the government may also assist through contributions from general taxation, thus affording support from three sources instead of only one.

It is well to remember, however, that all the money eventually comes from the taxpayer, be he rich or poor. There is validity to the arguments of both sides; it is a matter of relative values.

Civilization forces restrictions upon the initiative and freedom of individuals, but these restrictions are accepted—by all but the criminal class—voluntarily and with the understanding and belief that they are for the good of the community and, therefore, for each individual's personal advantage. For example, taxation is a relinquishment of the freedom of spending one's own money as he might wish, as a result of which he obtains certain benefits from the states. Compulsory insurance is a form of taxation.

In developing our form of government we have agreed that the Federal Government can do some things better than the states. These activities include the Army and Navy and the protection of the country; the control of currency through the treasury and the Federal Reserve System; the carrying of mails through the Post Office Department; the Interstate Commerce Commission; and the control of epidemics through the United States Public Health Service.

It has also been agreed that states can do some things better than cities. These activities include general laws affecting all residents of the states; the general direction of education; the licensing of doctors, lawyers, and nurses; workmen's compensation laws; the care of tuberculous and mental patients; sanitation and state boards of health. Lastly, it is agreed that cities and towns can regulate best police and fire departments, local health and welfare matters, schools, and local public works.

This is all built on the sound principle that the larger unit shall take responsi-

bility only for those things that it can do better than the smaller—and it should be remembered that it all begins with the individual citizen.

There is, of course, a wide variation in what cities or states are willing to do. This gives an uneven distribution of public works, public service, and regulating laws. Public works and service, although they offer benefits, cost money which must be raised by taxation. In general, those communities that have the greatest public services also have the highest tax rates. Those communities that want them must pay for them.

Federalization of any project means that some communities will have to pay not only for the public services which they now have in their own community but for similar services in other communities that do not have them and which are too poor or are unwilling to pay for them. It may be argued that this is just, that the richer community should help the poorer and that by so doing the whole country is benefited and even the doubly taxed richer community receives adequate benefit through the improvement of its neighbor, but let us recognize what is going to take place.

So much for the state. Now what about the individual; how does taxation affect him? Everyone wants freedom and security. *Freedom* of religion, of speech, of work, and of spending. *Security* through protection against want, against loss of work and unemployment, provision for old age when earning power is lost, protection of dependents in the event of death of the wage earner, and protection against the cost of sickness and the accompanying loss of income.

Apparently, security can only be reached through the voluntary renunciation of some part of freedom. To achieve se-

curity for old age, unemployment, and sickness, one must give up complete freedom in spending one's earnings. That is, one must pay for it through taxation or save for it oneself. The question is, *how* are we going to do it—by individual initiative through savings and voluntary insurance, or by legislative enactment, through our elected representatives, of compulsory insurance, which is taxation?

According to the bill, which is based upon statistics collected by the Bureau of Research and Statistics of the Social Security Board, the employee will pay to the unified system 6 per cent of his wages and his employer will also pay 6 per cent of the payroll. This applies to all wages up to \$3,000 a year. Approximately one-quarter of this is set aside for medical and hospital benefits or, as it is commonly termed, compulsory health insurance.

The following figures are only approximate and are not official; they will, however, serve to help us understand the workings of the plan. The estimated normal income of wage earners in the United States is in excess of \$100,000,000. Twelve per cent of this is \$12,000,000. Of this one-fourth, or 3 per cent, is to be set aside for medical and hospital care. Of this latter \$3,000,000, one-third of the contributions is to be set aside for hospital care, leaving \$2,000,000 for medical care.

These figures may be too high or too low but in either case it would seem as though the statistical basis of the plan is reasonably sound and that certainly, as far as hospital costs are concerned, there would be enough money to pay the hospital bills.

How does this apply to the individual taxpayer? The population of the United States is approximately 130,000,000. The number of wage earners who would come under this Act is 30,000,000, or almost

one-quarter of the population. With their dependents they total 80,000,000, or two-thirds of the population.

Now let us take the case of a person earning \$2,000 a year: 6 per cent of \$2,000 is \$120, which will be his direct contribution or tax. But employers also pay 6 per cent, which in time will be passed along and added to the cost of production of every article and so bring about a higher cost of living for every one of the 130,000,000 persons in this country.

The wage earner must pay his share of this added cost for himself and his dependents, and since they form two-thirds of the population they will pay two-thirds of this added cost of living, or 4 per cent of the 6 per cent involved. Consequently, he will pay 6 per cent in direct taxes and 4 per cent in indirect taxes, or 10 per cent in all. Therefore, his real contribution will be not \$120 but \$200 out of his \$2,000 in wages. In return for this he will get (1) old age pensions; (2) unemployment payments; (3) survivor benefits; (4) medical and hospital care.

Now, in addition to the above assessment he must pay his regular direct and indirect taxes to federal, state, and city governments. It is estimated that at present everyone is paying between 25 and 30 per cent of his income in taxes, one way or another. If this bill is passed the figure will rise to 35 or 40 per cent of total income.

Is it not fair to ask how far this taxation, allocation, or check-off on wages can go and still permit the wage earner to maintain initiative and freedom? To be sure he gets much in return, but one must ask, "What price freedom?"

It is true that this 10 per cent will not all be additional cost, since both employers and wage earners are already contributing to a social security fund. Present so-

cial insurance taxes are: for employers—one per cent for old age and survivors, 3 per cent for unemployment compensation; for employees—one per cent for old age and survivors.

Thus the employers are paying 4 per cent of the suggested future 6 per cent but the employees are paying only one per cent of the suggested future 6 per cent. Therefore, the employee will pay 5 per cent more as his own contribution plus two-thirds of the 2 per cent increase in employers' tax, or 5 per cent plus $1\frac{1}{3}$ per cent, or $6\frac{1}{3}$ per cent more than he is paying now.

It is also true that the Social Security Act as written calls for an increase on January 1, 1946, to $2\frac{1}{2}$ per cent for both employer and employee to cover old age and survivor benefits, and to 3 per cent in 1949. Nevertheless, the point which I wish to make is still pertinent, that there will be a substantial increase in taxes taken directly from wages.

The experience of all European plans, of voluntary plans in this country, of university departments of hygiene where students pay a fixed "health fee," is that the amount of medical care is increased. Human nature is such that, having contributed, everyone will want to receive some benefit. Granted that more medical care than is now utilized is desirable, it will be well to consider whether the existing number of doctors, nurses, and hospitals will be able to meet the demands which will be suddenly thrust upon them.

This is not an argument against providing more medical and hospital care but rather against too rapid change from one system to another. After all, medical care is dependent on individual doctors and hospital care is limited by the extent of hospital facilities. If the amount of care is to be increased so must be the means

of providing it. Promises that cannot be fulfilled lead to exasperation of those who are disappointed. Some check which will control too rapid expansion would seem to be indicated.

If we believe that our present medical and hospital system is satisfactory, that it is developing adequate methods of meeting economic needs and will in a reasonable time supply adequate medical and hospital care to all at costs and by methods within their means, then we should oppose the Wagner-Murray-Dingell bill.

If we believe that the present system is unsatisfactory and inadequate and that voluntary plans will never adequately provide medical and hospital care, that "Group III," comprising 41 per cent of our population will never be satisfactorily protected, then we must decide whether we will achieve this protection through direct general taxation or through compulsory insurance. Between these two choices there is no doubt but that compulsory insurance is the better plan.

If we decide to have compulsory insurance we may support the Wagner-Murray-Dingell bill, but I should hope with certain important changes. Let us consider how compulsory health insurance would operate under the provisions of this bill.

First of all we have the problem of federalization. Can the Federal Government control the medical and hospital system better than state governments? In some ways it can; for instance, federalization assures similar application of collections and benefits in all states, whereas at present there is variation in the action of security boards in different states.

On the other hand, can a centralized organization ever understand and adjust its rulings and methods to meet satisfactorily the varying conditions of 48 states? Will there not inevitably be a

tendency to set up rules and regulations and to apply them universally with the result that what is applicable with advantage to conditions in one state may be disadvantageous when applied to different conditions in another state? Will there not be great possibilities for pressure groups and log rolling deals since local committees will thereby stand to obtain great benefits at small costs to themselves? Witness the efforts to obtain veterans' hospitals.

The resulting bureaucracy that must of necessity be created by such federalization will further accentuate the already alarming number of federal employees, with the corresponding dangers of political patronage and the party coercion of voting powers. Already this is approaching proportions where we may properly ask whether they are working for us or we are working to support them.

To be acceptable to most people there must be presented in any such bill a rational plan clearly defining how the central regulating federal organization can be decentralized to administer benefits and adjust general principles and policies on a local basis. Whether this shall be done by existing state health or social security organizations or by a new board composed of all the various state departments involved, with perhaps additions representing interested groups, is a matter for further study and decision. However, a very substantial amount of local administration must be guaranteed.

Without question, to my mind, the authority granted to the surgeon general of the Public Health System is too great. Granting the integrity and ability of Surgeon General Parran and those who have preceded him and who will follow him, the concentration in one man of the authority to select or reject the physicians

and to designate or reject the hospitals that may participate in this plan approaches dictatorial powers. May he not under pressure in turn use pressure on these appointees to influence them in their activities, both social and medical—with loss of appointment as the penalty for non-conformity?

It would seem obvious that there must be non-partisan control of such power. This would be possible by changing the suggested advisory committee to a directing committee which would have the authority to determine policies and principles, to direct the surgeon general, to review his acts, and to which he must report.

This committee should not be selected by him but should be composed of representatives selected by those national organizations most competent to judge and most interested in the quality and quantity of medical and hospital care and in the successful operation of this project, such as the American Hospital Association, American Medical Association, American Nurses' Association, American Dental Association. Whether they should be appointed by the President or by Congress is immaterial so long as they are not appointed by the surgeon general.

Such a change would adhere to the well-known principle or organization of having a policy making body with an executive for carrying out its policies and reporting to it. This is the organization of our government. Congress makes the laws, the President carries them out. It is the organization of our corporations. The board of directors makes the policies, the general manager executes them. The surgeon general may be the logical executive officer to administer the regulations of such a directing committee, but he should not be the chairman.

The next point is one of omission in the bill. Our hospital system has been successfully built upon the general principle of governmental cooperation and supplementation instead of replacement. Government hospitals—federal, state, and municipal—cooperate with and supplement non-governmental or voluntary hospitals in providing care. Furthermore, this system promotes friendly but active competition in producing better care of patients. There should be added to the bill the proviso that membership in a voluntary hospital or medical insurance plan that provides comparable benefits will be acceptable in lieu of compulsory contributions. Compulsory insurance may be required for others.

Admittedly this puts up a tough proposition to the voluntary plans because compulsory plans have the advantage of forced payments from employers. But voluntary plans have the advantage of working under flat rates which makes them attractive to those earning higher wages.

Certainly such a proposition will stimulate competition to see which can run the better show. To compete, Blue Cross must operate in all states with reciprocity, and Blue Shield will have to develop rapidly a more nearly complete schedule of medical benefits. Moreover—and this is extremely important—such a provision would adhere to our principle of encouraging personal initiative, of encouraging thinking and choice on the part of every wage earner. Thereby he becomes a better citizen.

Lastly, it is essential that payments for medical and hospital service be made direct to the physician and hospital and not to the subscriber beneficiary. Only in this way can payment for service be assured. The present permissive statement that

beneficiaries *may assign* payments is not satisfactory.

To sum up, if legislation is to be enacted it should adhere to certain basic principles:

1. It should disrupt present conditions as little as possible. Therefore, legislation for compulsory health insurance should assist, cooperate with, and supplement our present medical and hospital system—not replace it. This means that the principle of private medical practice, voluntary hospital and voluntary medical and hospital insurance plans shall be specifically recognized and their existence approved.

2. It should permit opportunity of choice. That is, the citizen should have a choice between joining a voluntary medical and hospital insurance providing comparable protection and accepting compulsory insurance, or, in other words, membership in a voluntary plan providing comparable benefits should be accepted in lieu of compulsory insurance.

3. It should permit operation on a local basis, through state organization, of principles and policies developed on a federal basis. In other words, federal guidance and control but local application. In no other way can local conditions and variations be successfully understood and met.

4. It should place control of any health plan in the hands of those most interested and best informed in the quality and quantity of medical and hospital care. To this end a governing or directing committee, composed of doctors, hospital administrators, dentists, nurses, public health officials, and others representing the public, should be created to develop policies and principles to be carried out by their agent, who may very properly be the surgeon general of the United States Public Health Service.

5. That the objective of such legislation is to provide medical and hospital *service* and not to provide a cash payment which *may* be used to obtain medical and hospital care. To achieve this, payments for service should be made direct to the doctor or hospital and not to the beneficiary.

If these principles are adhered to I believe that it is safe to present a plan of compulsory health insurance to the people of this country for consideration, for under these conditions freedom of choice and of action are still theirs.

In conclusion, I would say that since I am at heart an individualist—since I think that government best which governs least and evolution the safest way to advance—I am emotionally in favor of voluntary insurance and against compulsory plans. Perhaps these emotions are but the conscious components or results of experience.

At the same time, if I am to be truthful, I must confess that I cannot find any

convincing logical arguments against the general principles of compulsory plans, only criticism of specific points and a difference of opinion as to the desirability of doing things that way. Therefore, from the standpoint of reason and logic I cannot honestly oppose the idea of compulsory plans.

There is so much to be said on both sides that perhaps the answer is that both sides may be partly right and the only way to find the truth is through a fair trial. Why not then let us accept a trial of compulsory health insurance, being careful that it does not replace free enterprise in the shape of voluntary insurance but that it is operated as a cooperative, supplementary plan, with as few undesirable complications of operation as possible. In other words, if we must have compulsory insurance let us make the enacting legislation as nearly perfect as we can through constructive criticism.

4. A Practitioner's Viewpoint of Medical Service Plans, by *Channing Frothingham, M.D.**

IT is important to have a clear understanding of existing economic conditions in the practice of medicine in order to comprehend the necessity for the development of plans for rendering adequate medical service to all the people and for properly reimbursing physicians for their work. On the patient's side, because of the high cost of adequate medical care for certain medical problems, many individuals do not receive such care, many others become medically indigent who are not otherwise indigent, and still others worm their way into the medically indigent group who rightfully do not belong there. On the physician's side, the payment of physicians for the care of this abnormally

large number of medically indigent is in general very unsatisfactory and insufficient. Furthermore, many well-trained physicians are not kept busy enough, due in part, apparently, to the inability to bring those in need of medical care in contact with those trained to render it in an adequate manner, and in part due to those who do not go to doctors because of the expense, so that many physicians are not receiving the financial reward which their expensive training justifies. For the rectification of such unfortunate conditions for both patients and physicians, medical service plans are developing.

* Adapted from *Hospitals* 14:36-39, Jan. 1940.

Medical care for illness and prophylaxis against disease under our present system are usually paid for partly through taxation and partly on a fee for service basis; both methods are unsatisfactory. Although some of the medical care provided by taxation, such as serums, vaccine, laboratory work, etc., is very satisfactory, the payment for professional service by taxation, as mentioned above, is quite unsatisfactory. Also, the cost of the medical care paid for on a fee for service system puts too severe a burden upon the majority of those already handicapped financially by the existence of the illness.

In view of these facts, a change in the system of paying for medical care must be devised for the benefit of the great majority of patients and physicians. The important change should be the development of a plan by which the well pay for the illness of the sick, just as in life insurance the living pay for the dead, and in fire insurance the fortunate pay for the unfortunate. Such a plan amounts to some type of insurance or increased taxation.

At the present time insurance plans seem to be generally developing and the problem is narrowing down to whether the insurance should be compulsory or voluntary, and whether it should apply to all the citizens or only to certain groups of the population. There are strong advocates of both compulsory and voluntary insurance throughout both the lay population and the physicians, and, despite much that has been written to the contrary, compulsory sickness insurance in certain forms has been very successful in many instances.

In order to make voluntary health insurance plans prosper, the point of view of the public must be changed so that they look upon health insurance in the same light as fire or life insurance. If one carries fire insurance for many years, one

does not feel dissatisfied if one's property is not destroyed by fire, or if one carries life insurance for a number of years, one is not disappointed at still being alive. In regard to insurance for medical care, one should feel that it is well worth while to have carried it without being disappointed at not having had an illness. That this intelligent point of view in regard to health insurance is definitely developing throughout the country is shown by the response of so many people to voluntary insurance plans for the payment of hospital charges and for the rendering of medical service.

Although a variety of plans for insuring against illness will undoubtedly develop throughout this country, due to the difference in the character of the problem in different sections, in general a medical service plan should cover medical and surgical care in the home, in the office, and in the hospital for illness and obstetrical care, and provision for prophylaxis against disease. These plans should be on a prepayment basis, with the subscriber receiving actual service rather than cash indemnity. The insurance against hospital charges may well be included in such a plan, or it may be kept distinct as it now is in many of these successful insurance plans for the payment of hospital expenses. The success of any insurance plan should depend upon the guarantee that the type of medical service which is given in return for prepayment is the best.

In view of the fact that these unsatisfactory conditions in regard to the cost of adequate medical service and the recompense to physicians have existed for years, and also that, with the advance in medical knowledge, the cost of adequate medical care is steadily increasing, why is it that prepayment insurance plans for the rendering of medical service have been

so slow in developing? There seem to be two main factors:

1. Existing laws in regard to the corporate practice of certain professions have inhibited the development of medical service plans.
2. The opposition to the development of such plans by organized medicine.

A careful consideration of these factors, I believe, will show that they are not sound reasons for interfering with the development of such prepayment plans.

As charitable corporations have definitely shown that excellent medical care can be provided by such a corporation, it seems unfortunate that laws are passed forbidding noncharitable corporations from demonstrating whether or not they can practice medicine in a satisfactory manner for the patients. To just assume that they cannot, as is frequently claimed, seems to me an indefensible assumption. For there is already some evidence to support the idea that corporations can practice medicine for profit and provide better service for the patients than is being provided under the existing fee for service system between practitioners and individual patients. It is to be hoped that, as time goes on, this limitation of the law will be removed in order that experiments along these lines can be further tried out.

The opposition of organized medicine to prepayment medical service plans, I think, is due in good measure to the lack of comprehension by the majority of practitioners of the real problems. There is also the fear on the part of some physicians that any new plan of this sort will make further inroads into their practice, as the high cost of medical care has done, by driving many of their patients, rightly or wrongly, to the free clinics. On the contrary, successful prepayment medical service plans should send many patients

back from the free clinics to the care of their former practitioners.

Many of the claims of organized medicine in regard to the evils of a system of prepayment for medical service are not supported by existing facts. For instance, organized medicine feels that poor medical service will result if service is given for prepayment, and it cites old-fashioned lodge practice as an example of poor medical care. That old-fashioned lodge practice did deteriorate into poor medical care is obvious, but this chiefly depended upon the lack of proper remuneration to the lodge doctor so that the better men were not enthusiastic to undertake the work, and because an individual physician tried to cover all medical problems. Naturally, under any intelligent prepayment plan, the physicians will be properly remunerated and expert specialists will be provided where they are needed.

Another claim by organized medicine is that the fee for service system is a necessary stimulant to the production of good medical care, yet there is plenty of evidence throughout this country of physicians taking part in all types of medical work and practice on a salary basis and rendering much better service than is rendered by some physicians on a fee for service basis. In fact, there is evidence in some quarters that this fee for service basis acts as a stimulus to prolonging the treatment of patients or instituting expensive procedures which add unnecessarily to the cost of medical care and thus really results in poorer practice. The claim, therefore, that the rendering of medical service under a contract paid for in advance will lead to poor medical service is in no way justified, and there are already in existence in this country prepayment plans for obtaining medical service which are highly satisfactory.

One usually hears from organized medicine and often even from the layman the question, "Does a prepayment plan for medical service permit of the free choice of physician?" This expression, "free choice of physician," is a much abused expression in so far as the implication exists that the lack of free choice of physician interferes with adequate medical care, or is unfair to the practitioners. Under existing conditions, not only in almost all charitable or tax supported institutions is the free choice of physician not allowed, but in the majority of private groups of physicians organized to practice, free choice of physician is not permitted. As Richard C. Cabot said, "Attention should be turned to the intelligent choice of physician rather than the free choice, which is often unintelligent."

It is interesting to speculate when and why this thought about the free choice of physicians originated. It seems likely that it originated, or at least became more prominent, when types of compulsory insurance calling for medical care began to appear. If an individual is compelled by law to take out insurance for certain medical service, it seems reasonable to allow him to have the physician of his choice. However, no individual can claim that he is being deprived of free choice of physician by joining a voluntary prepayment plan with service rendered only by certain physicians any more than if he consulted a group of doctors organized in a clinic on a fee for service basis. Therefore, as numerous groups develop prepayment plans on a voluntary basis, an individual patient will have as much freedom of choice of physician as exists at the present time by choosing the group in which the physicians of his choice work.

Another obstacle to the development of prepayment plans for rendering medical

service has been the attitude of the American Medical Association and some of its subdivisions, namely, certain state medical societies, in which it has been voted that the only type of insurance for medical service should be cash indemnity insurance. Unfortunately the rates for cash indemnity insurance must be too high for practical application to the great mass of people who need this type of insurance, if the companies give a reasonable coverage and pay the indemnity without the usual controversies that develop.

The claim has been made that if numerous groups develop prepayment plans for rendering medical care, competition will spring up between these different groups, which will lead to deterioration of the medical service. Such a claim is based on theory rather than fact, for, in general throughout this country, competition results in improvement of a commodity to be sold rather than deterioration. I think it is fair to claim that competition among groups organized to render medical service would stimulate the groups to better service in order to attract patients into the particular group.

It becomes apparent, therefore, upon analyzing the situation, that the opposition of organized medicine to the development of prepayment plans for delivery of medical service because it will lead to poor service is not on a sound basis. It is furthermore a fact that there are many practitioners in the organized medical societies who are very much in favor of the development of such prepayment plans, showing that the fear as expressed by some is by no means universal.

The next point to consider is whether physicians, under such a prepayment program for medical care, will be properly reimbursed. In the first place, great numbers of individuals who now are receiv-

ing medical charity so far as physicians' bills are concerned will promptly be removed from the class of medically indigent and become again private patients paying their way. This will leave the number of really medically indigent patients much less and, therefore, there will be better opportunity for the physicians who care for such patients to be properly reimbursed for their services from taxation or private philanthropy. Experience indicates that those physicians who have done the work, either as general family medical advisers, pediatricians, or specialists, in those prepayment plans which have been successfully organized are well satisfied with the reimbursement which they have received for their services. Furthermore, it has been possible under such a program to arrange for the individual physician to have proper vacation and proper time for postgraduate study without the fear that his income will be seriously impaired.

As the general medical and pediatric work among the subscribers to a prepayment plan should in great part be done by younger physicians, there immediately becomes available an active practice for these young men, rather than the discouraging delays which all too often occur to those developing a practice on a fee for service basis. Such work should offer as good a training to these young physicians for branching out into special fields or consultation work in later years as the building up of a private practice on a fee for service basis would offer.

The development, therefore, of prepayment plans for the rendering of medical service should relieve the individual patient of financial catastrophe when serious illness strikes unexpectedly. It should also permit many patients who are medically indigent to become private patients again of individual physicians. It should improve

the quality of the medical service rendered to individuals who now are receiving inadequate medical service because of its cost. It should relieve the taxpayers of the tremendous burden of caring for so many medically indigent. It should render it possible for the physicians who care for the really medically indigent to be properly reimbursed for their work, and it should give properly qualified young physicians an opportunity to start immediately into practice on a basis of plenty of work, proper time for study, and appropriate vacation, with satisfactory reimbursement.

Some changes in the law may be advisable in order to facilitate the establishment of such plans. It is exceedingly important that such plans should be developed for all strata of society, just as life insurance and fire insurance are developed. There can, of course, be different types of policies with different rates, so that the more fortunate financially may be able to obtain their medical service in a somewhat more luxurious manner, but under any program there must be the best of medical care delivered to all strata of society.

A plan is being developed by certain laymen and physicians in Massachusetts at the present time for the delivery of certain medical service to subscribers on a prepayment basis. Those practitioners of medicine who have been asked if they are interested in working under such a plan have expressed great interest and in general a willingness to participate in the experiment.

One plan at the moment is developing along the lines of a nonprofit charitable corporation for rendering medical care for people below a certain income level, and at the moment it looks as though the income group would include those whose incomes are below \$3,500 a year. Another plan is developing to offer pre-

payment medical service with certain exceptions to individuals in any income group.

The individuals in the low-income bracket will probably have to subscribe in groups consisting of a certain proportion of the employees of an individual company in order to keep the rate down to around \$30 a year, which is about all such a low-income group can reasonably pay. For those with incomes in the higher brackets, the rate may be around \$50 a year. These subscribers probably will be enrolled as individuals after a physical examination eliminates existing medical

problems or in reasonably large groups without examination.

Just what the experience will show should be the proper rate which the individual can afford to pay and under which the company can function properly cannot at the moment be decided. It may be that such insurance cannot be worked out without financial aid from the government, but it seems well worth while to give voluntary prepayment insurance for medical service an opportunity to develop, because, should it succeed, the tremendous overhead of governmentally supported compulsory insurance will be eliminated.

5. An Explanation of Canada's Health Insurance Proposal That Has Hospital Support, *by G. Harvey Agnew, M.D.**

THE proposed health insurance measure now under consideration by the federal government of Canada is of real significance for three reasons: (1) its indication of the obvious trend in public thinking, (2) its indication of the attitude of various professional bodies and hospitals towards the proposed measure, and (3) the way in which the drafting committee prepared the draft measure.

It is also of interest to members of the American Hospital Association because of the frequent observation that legislation or methods developed in one country seem to lend impetus to a parallel development in the other.

Although not actually a government measure, it was prepared under instructions from the minister of pensions and national health. For that matter, both major parties in the House have at some time or other expressed themselves as behind the principle of health insurance.

The present procedure has been to have a committee of permanent officials—health authorities, actuaries, legal advisers, statis-

ticians, economists, and others—work out a measure after consultation with a large number of interested groups and organizations. This draft measure was then studied by the House Committee on Social Security, forty-one in number and representing all parties, which in turn heard memoranda submitted by nearly forty organizations or bodies representing a wide range of interests and viewpoints.

This House Committee had not finished its study of the measure by the time the House adjourned in July; consequently it reported little beyond expressing approval of the general principles of the measure. There is a widespread feeling that the measure may become law at the forthcoming session, particularly in view of the socialistic trend revealed in recent regional elections.

With all political parties striving to meet public demand for general health

* Adapted from *Hospitals* 17:79-82, Nov. 1943.

During the years that have intervened since this article was written a good deal of progress has been made both at Ottawa and in a number of the Provinces.—G. H. A.

protection, those who question the advisability of this plan are receiving little political support from any quarter except from the Department of Finance, where the magnitude of the financial obligation is appreciated.

The proposed measure would provide almost complete health protection. Full general practitioner, specialist and consultant, and hospital service would be provided without limit. Nursing care and drugs within reasonable limits and a wide range of ancillary services would be furnished. Dental care would be limited to children, mainly because of the obvious inability of the dental profession to handle the rush of adult work that might be demanded.

The measure would involve combined federal and provincial participation. The federal act would be primarily an enabling act only, the actual setting up of health insurance being left to the individual province. This federal enabling act would include a model provincial act. Any province adopting this suggested pattern, or one "substantially in the terms" of that outline, would be given a substantial federal subsidy by way of assistance.

In addition, the federal government would assist the provinces with substantial public health and special grants which would be of assistance in developing an outstanding program of public health and preventive medicine, including tuberculosis and mental care, venereal disease control, professional training of health workers, and special investigations (Schedule I of draft bill).

The public health provisions would also cover food and drug control, nutrition, augmented laboratory facilities, dental hygiene, child and maternal hygiene, industrial hygiene, public health nursing, housing, cancer control, heart services, im-

proved school services, epidemiology, and research programs.

In many respects these provisions constitute the finest portion of the proposal, for nowhere in the world to our knowledge, with the possible exception of Russia, has such a fine public health program been included in a plan of health insurance.

It is not settled whether the program will cover all of the people or only those below a stipulated income. Federal spokesmen have expressed the hope that it would cover everybody, but this detail is one of the many being left to each province to determine.

How will this measure be financed? The plan is to be a contributory one, these contributions being supplemented by state assistance (federal and provincial). It is estimated that an insured person would pay at the rate of \$26 per year, or 50 cents per week, for himself and for each adult dependent.

Under no circumstances, however, is his total contribution to exceed 3 per cent of his income. A commendable feature is that, although children are covered, there is no assessment for them, thus making it easier for the parents with large families.

If an employee's salary is so low that 3 per cent does not make up the \$26 (for himself), the employer pays the difference. Those unemployed or otherwise unable to pay the full premiums will be assisted in whole or in part by the provincial and federal governments.

The present proposal is to have the executive control in the provinces under a commission made up of representatives of all major groups concerned—labor, farmers, doctors, hospitals, nurses, etc.

How would the hospitals fare?

As stated above, a number of representative bodies were invited in the spring of

1942 to make recommendations to the drafting committee. Actually the Canadian Hospital Council was the first body to do so. A series of twenty-one principles was presented (C. H. C. Bulletin No. 41) and many details were discussed at subsequent conferences. Later a more comprehensive memorandum was presented by the hospitals to the Committee on Social Security (C. H. C. Bulletin No. 43).

The draft bill as it now stands seems to be fair to the hospitals. There is free choice of hospital as well as of doctor; voluntary hospitals are to be fully and impartially utilized; and staffing arrangements are not to be disturbed. General ward service is to be provided, but private accommodation may be taken by paying the difference in charges.

There is a choice of methods by which hospitals may be paid. Proprietary hospitals are not eligible, except where voluntary or municipal hospitals do not operate, but there are relatively few proprietary beds in Canada and these hospitals as a whole are small and none too well equipped.

The Canadian Hospital Council is to be given representation on the National Council on Health Insurance and the provincial bodies on the respective provincial Commissions.

It is our impression that the hospitals across Canada are generally in favor of the principle of health insurance. Very little contrary opinion has been expressed. There was remarkable unanimity in the thinking of our C. H. C. Health Insurance Committee, representing as it did lay and religious groups, English and French speaking members and voluntary as well as municipal hospitals.

Our hospitals realize that we have not yet adequately solved the problem of relieving the public of the oppressive bur-

den of sickness. We have lightened the burden by various means, but anyone familiar with the health needs of the people cannot but realize that so far we have only evolved partial solutions and ones which so far have been applicable to but a portion of the total population.

We still have not adequately solved the problem of medical care for rural areas nor for the indigent, and we have not evolved as yet a satisfactory solution for the care of the patient who is just above the indigent class—the so-called “low-income” person.

For the majority of our population there is still an economic, and in too many cases a geographic, barrier between him (and his family) and early and adequate diagnosis and treatment.

We are intensely proud of our system of hospital care and feel that our hospital boards and their staffs have given noteworthy service, often under great difficulties. From a hospital angle, however, we realize that our voluntary system has not been able to serve all rural areas as adequately as we would like.

We find, too, much evidence of lack of coordinated planning, resulting in unnecessary gaps in service on the one hand and in some places unnecessary duplication on the other. This occurs in communities of all sizes, but particularly in those of medium density of population.

We have in Canada an excellent system of municipal payment to voluntary hospitals for the care of indigents, but in actual operation there is considerable controversy over the determination of indigency, residency and other factors. Hospitals would welcome a system wherein these bases for argument were eliminated.

What about the professional groups? The Canadian Medical Association passed a resolution last January by *unanimous*

vote of its general council, approving the principle of health insurance, and expressed itself in favor of a plan which would "secure the development and provision of the highest standard of health services, preventive and curative, if such plan be fair both to the insured and to all those rendering the service." This decision was not made hastily, but only after several years of study and discussion by that body.

The Canadian Nurses Association in its submission stated: "The Canadian Nurses Association wishes to assure the Special Committee on Social Security that its members very earnestly desire to share in the development of a plan which will safeguard and promote the health of the people of Canada." It then outlined the basis upon which it would like to participate. The Canadian Dental Association did not express itself in favor or otherwise, but presented a practical basis upon which the dentists could be included.

As for the specific measure now before us, it is our impression that the hospitals generally approve the bill as now drafted. Some of the details are not entirely to our liking, some are a bit ambiguous, and some might permit a province to pass very undesirable legislative details or regulations; some of our number would prefer to see the measure delayed until after the war. Some would like to see the model provincial act deleted. Nevertheless the measure would seem to have provided for most of the recommendations of the hospital, medical, nursing, and dental committees, and to be reasonably satisfactory.

At the same time, I think I speak not only for the hospitals but for the professional groups named when I say that in giving support to the measure to this stage, we are prepared to withdraw that

support should revisions in the committee, in the House, or in the Senate lead us to believe that the measure would lower, rather than raise, the quality of service, or ultimately lead to a deterioration in our health services.

Even though it passes the federal Houses without damage or dismemberment, it may be sadly mutilated in the individual provinces. We want it kept out of politics—and that will mean a continuous fight. The regulations may not be satisfactory, payment may not be adequate, and autonomy may be threatened.

For these and other reasons we welcome the inclusion in the federal measure of a "model provincial act" with appended model regulations. This model provincial act, leaving as it does many of the details to the provinces, is the strongest possible safeguard to our voluntary hospitals, should one or more of the provinces elect a government unfriendly to the principle of voluntary effort.

We are particularly anxious that this health insurance development should preserve, not destroy, our voluntary system. Our voluntary hospitals, lay and religious, have bequeathed to us a heritage of service and of public sentiment that has been one of the finest gems of our civilization.

Lose that and we have lost much more than so much brick and donated service; we have lost one of the most powerful influences in any community for fostering the spirit of altruism and public service. Health insurance has the potentialities inherent within itself either to destroy or to preserve our voluntary system.

We believe that the voluntary system can be preserved and made to thrive under health insurance, provided proper safeguards be set up in the beginning. In fact, by reasonable supervision of expenditure and operational methods, by reduc-

tion of unnecessary overlapping, and by assurance of adequate maintenance revenue, we think that philanthropy for capital expenditures can be stimulated.

In other words, greater confidence that a real need is being served, that good business methods are being employed, and that subsequent operational solvency is assured should augment, not retard, contributions from those who exercise judgment and discrimination in their philanthropy.

Most concern is felt by the teachers in medical schools. If all of the people are covered, or all below a certain income level, and all are enabled to have private medical care, what will happen to outpatient departments and to teaching wards? This has been thoroughly discussed in medical circles. The draft measure now requires that, with the exception of those who take private or semiprivate accommodation, all insured persons "shall be available for clinical observation" (31. (1) (i)).

Hospitals are also permitted to have "closed wards" if desired. There is to be, too, additional remuneration to teaching hospitals to finance added facilities and encourage patronage. Many feel that these provisions should suffice, but to more fully meet the need and to avoid the cry raised by certain people of class distinction, the Canadian Medical Association has recommended that all patients, irrespective of the type of accommodation, be made available for teaching, should such be desired. That should be fair enough.

Many of our districts have active hospital prepayment plans, some of them approved as Blue Cross Plans. The Plan for Hospital Care in Ontario is fast approaching the quarter million mark. It is realized that general health insurance

would probably render these plans unnecessary.

This has been a matter of deep concern to many of us who, over the years, have so strongly supported these highly commendable plans. We have hoped that these plans could so develop that the cry for general health insurance would be stifled. We have had to admit, however, that their growth, excellent though it has been, has not been sufficiently rapid nor have the benefits been sufficiently broad, to satisfy the demand of the general public for a complete coverage applicable to all people.

The lamentable slowness with which parallel medical plans have been sponsored or proved acceptable has not made it easier for the Blue Cross Plans to meet these needs. We would hope that there might be a place for the voluntary plan above the income level for compulsory inclusion, but if all people be covered, this possibility would be limited.

Although favoring compulsory health insurance, the hospitals and professions do not want to see state medicine introduced. By "state medicine" we mean a noncontributing form of state-operated medicine wherein all participants, including hospitals and doctors, would be direct servants of the state.

The latter has certain advantages, but many disadvantages and would destroy without sufficient compensation many of the fine features of our present-day system, features which could be retained under a soundly drafted contributory form of health insurance.

Perhaps health insurance may ultimately lead to state medicine, as feared by some, but we take the viewpoint that it is more likely to go on to that stage, and through a disastrous series of transitions, if our professional bodies and hospitals do not

step in in this formative stage and lend their invaluable expert knowledge to the drafting of any plan adopted.

Only by so doing can we be assured of a measure which will be fair to the public

and to those giving the service, be workable in detail, be actuarially sound and preserve as many as possible of the finer traditions and principles of our voluntary system.

6. Voluntary Medical Insurance Plans, Their Extent and Limitations, by Margaret C. Klem*

DISCUSSION of the Wagner-Murray-Dingell bill has raised many questions concerning the extent to which voluntary prepayment medical plans are now meeting the need for protection against unpredictable medical bills, the degree of popular interest in the desire for such protection, and its cost under voluntary, nongovernmental auspices. A report¹ published by the Social Security Board gives data on over 200 plans in the United States and a few in Canada. About three and one-third million persons were eligible for medical care under the plans surveyed in the United States during the spring and summer of 1943. This article makes available summary data on the following questions: What persons are eligible for membership? What is their geographical distribution? What are the restrictions upon membership? What physicians are associated with these plans? What services are provided?

PERSONS ELIGIBLE FOR CARE

In referring to the number of persons eligible for care in prepaid medical care organizations, the word "membership" will be used in its broad sense to include the subscribers and their dependents. In some organizations dependents are entitled to care on a prepayment basis, while in others they may receive care from the staff of the organization on the payment of a fee, ordinarily about 50 per cent of

the fee usually charged by physicians in the locality. Dependents under both types of plans are included in the count of those eligible for care.

The basic figures of membership are given in Table 1 for the 214 plans, classified in five types according to sponsorship, namely: industrial, medical society, private group clinic, consumer, governmental. The table shows that the plans associated with industry are far more numerous, and their total membership much greater than any other one type. About one and one-half million of the total of three and one-third million members included in the 214 plans belong to those that are organized within an industrial establishment. The responsibility and the financial burden may be upon the employer or the employees, or it may be a joint matter. Of the 113 industrial plans, 13 firms pay the entire costs of providing medical care; in 47 plans the entire cost is met through payroll deductions from the employees, while 53 plans are financed jointly by employer and employee. Over 50 per cent of the persons eligible to receive care in these industrial plans belong

* Adapted from *Medical Care* 4:263-270, Nov. 1944.

¹ Bureau Memorandum No. 55, *Prepayment Medical Care Organizations*. Information on a few of the major characteristics of 214 plans in the United States is summarized in the statistical appendix of the second edition of this report, and a detailed analysis will be available at a later date.

TABLE I. NUMBER OF PERSONS ELIGIBLE FOR CARE UNDER PREPAYMENT MEDICAL CARE ORGANIZATIONS, BY TYPE OF ORGANIZATION
(Based on 214 organizations furnishing data in 1943)

Type of organization	Number of organizations	Persons eligible for care			Total including those eligible on reduced fee basis	
		On prepayment basis			Number	Per cent
		Subscribers	Dependents	Total		
Total	214	1,786,025	1,170,761	2,956,786	3,320,408	100.0
Industrial	113	866,014	318,261	1,184,275	1,425,325	42.9
Medical society:						
Washington and Oregon	15	229,247	900	230,147	230,147	6.9
Other States	*18	299,313	412,352	711,665	711,665	21.5
Private group clinic	24	212,563	163,130	375,693	490,980	14.8
Consumer sponsored	29	74,950	94,606	169,556	176,841	5.3
Governmental	12	87,443	155,852	243,295	243,295	7.3
Unclassified	3	16,495	25,660	42,155	42,155	1.3

to organizations which are financed entirely by the employee, about 8 per cent of the persons receive care which is financed entirely by the employer, and about 41 per cent of the employees pay part of the costs of the medical service and the employer pays the balance.

Within the past few years there has been considerable discussion in state and local medical societies about the development of prepayment for medical care, and some plans have been put into action. At the time of the inquiry about 230,000 persons were eligible for care in the medical society plans in Washington and Oregon, and over 700,000 in plans in other states. Membership in all the medical society plans accounted for a little more than 28 per cent of the total shown in Table I.

The Washington and Oregon medical society plans are so dissimilar from those in other states that the material concerning them has been presented separately. Their membership was about 230,000. Membership in the other medical society plans is concentrated almost entirely in California and Michigan; almost 625,000 of the 700,000 persons eligible for care in

these plans were in those two states at the time of the inquiry. Medical society plans were then in operation in 12 states, in addition to Washington and Oregon. More recent information indicates that in July 1944 medical society plans are in the process of study or formation or are in operation in 24 states, and that the total membership as of July 1944 in all states except Washington and Oregon was about 1,100,000.² In July, membership in the California plan was about 99,000 and in Michigan, about 663,000.

Included in private group clinics are organizations that are established and managed by physicians who practice as a private group. Members entitled to care from these organizations account for 15 per cent of the total number eligible for care in all plans.

Membership in consumer-sponsored plans represents only 5 per cent of the total. These plans include those organized or controlled by consumer groups but do not include groups organized within a particular industry and paid for entirely by the employees. These latter plans might well have been considered as consumer-

² *Blue Cross Bulletin*, August 1944.

sponsored but they were classified with industrial plans because services in them generally are available only to the employees of a certain business establishment. Included in the total of 29 consumer-sponsored plans are 6 which, although sponsored by the residents of rural counties and restricted to those who secure most of their livelihood from agricultural pursuits, are given financial aid by the Department of Agriculture. The membership of this group accounts for over 35,000 of a total of approximately 177,000 persons eligible for care in consumer-sponsored plans.

Some governmental plans are compulsory, established for the employees of specified governmental units. Included in the total of 12 such plans are 7 which were established for seasonal farm workers, domestic and foreign, recruited, transported, housed, or placed by War Food Administration or a cooperating agency. Out of the total membership of approximately 243,000 persons in governmental plans, 225,500 belong to these 7 organizations.

REGIONAL DIFFERENCES IN MEMBERSHIP

The Pacific Coast has the largest number of medical care plans, and the membership in them totals more than a million persons—about one-third of the national total. This large membership in the Pacific region is due primarily to the long history of prepayment medical care organizations in the Pacific region, associated first with certain industries and later with medical societies and private group clinics. The East North Central region comes next, with a total membership of approximately 800,000. Over 520,000 of this total are members of the Michigan Medical Society plans. New England, with a total of 13,000, has the smallest membership of any region.

The industrial plans are concentrated in the Pacific, the West North Central, the East North Central and the East South Central regions. The total membership in these regions ranges from 215,000 to 303,000. Over half of the membership in private group clinics is in the Pacific region and about one-fourth in the Middle Atlantic region. The consumer-sponsored type has developed most extensively in the Middle Atlantic region—77,000 out of the total of 177,000 members being found there, all in New York State. About 35,000 members of such plans are in the West South Central states and 27,000 in the Pacific region.

The relatively low membership shown for the consumer-sponsored plans results in part from the classification of industrial plans financed entirely by employees as industrial organizations. So far as membership participation in the management of the plan is concerned, in many instances these employee-sponsored organizations might have been classified with equal logic as consumer-sponsored.

PHYSICIANS ASSOCIATED

The physicians associated with the surveyed prepayment plans represented nearly one-third of all physicians in the United States engaged wholly or partly in private practice in the last prewar year. Well over 32,000 physicians throughout the country are giving care or have indicated their willingness to give care to the persons belonging to the 214 prepayment plans listed in the report. Of this number, 836 were employed on a full-time salaried basis, about 6,500 rendered service on part-time salary, and about 25,000 had agreed to accept members of the organization as patients in hospital, office, or home according to the terms of the contract. In addition, an unknown number of physicians in 55

TABLE 2. NUMBER OF PHYSICIANS ASSOCIATED WITH PREPAYMENT MEDICAL CARE ORGANIZATIONS, BY TYPE OF ORGANIZATION

Type of organization	Physicians associated with the organizations			Total
	Full-time salary	Part-time salary	Participating as private practitioners	
Total	836	6,551	24,756	32,143*
Industrial	508	5,872	149	6,529
Medical society:				
Washington and Oregon	1	—	1,516	1,517
Other States	22	—	18,751	18,773
Private group clinic	235	466	60	761
Consumer sponsored	52	211	3,550	3,813
Governmental	16	2	730	748
Unclassified	2	—	—	2

* In addition, the membership of 55 organizations may be served by local physicians; the number of physicians is unknown.

communities had agreed to give service under the plans. Most of the physicians employed on a full-time or part-time salary were with industrial plans. Of the 836 full-time physicians, 508 were with industrial plans, 235 were in private group clinics, and 52 were employed by consumer-sponsored organizations. About 90 per cent of the part-time physicians were with industrial plans, most of the remainder being in private group clinics and consumer-sponsored organizations. As might be expected, the medical society plans, all of which use open-panels of physicians, have none on part-time salary basis. Of the few engaged with medical society plans on a full-time salary, one was the medical director of a plan in Washington, and 22 were employed by the California Physicians' Service to give care to residents of public war housing projects.

Over 20,000 of the almost 25,000 "participating" physicians are associated with the medical society plans. Participating physicians as used in this discussion indicate those private practitioners who have agreed to accept payment for their services in accordance with a fee schedule.

In medical society plans, if the funds are not sufficient to pay according to the fee schedule, the physicians are paid a lower amount on a prorated basis. If the patient's income is above a specified limit, the physician may charge the patient the difference between the amount specified by the organization and his usual fee.

The Pacific region accounts for about one-third of the total number of physicians providing service through prepayment plans—10,000 out of the total of 32,000. About 400 are employed on a full-time salary and 1,800 on part-time, while an additional 7,500 physicians in the Pacific region are participating practitioners. The Pacific region it is recalled also has about one-third of the total membership in prepayment plans.

The Middle Atlantic region, with 8,400 physicians, ranks second in the total number of physicians associated with the 214 plans. However, the large total in this region includes over 8,000 "participating" physicians, the maximum reported by any region. This region with 351,000 ranks third in membership. The East North Central region with 794,000 members and 5,100

TABLE 3. NUMBER AND PERCENTAGE OF PERSONS ELIGIBLE FOR SPECIFIED SERVICES UNDER PREPAYMENT MEDICAL CARE ORGANIZATIONS, BY TYPE OF ORGANIZATION

(Based on 214 organizations furnishing data in 1943)

Type of organization	Number of persons eligible for care	Physicians' Service					
		At home and office; and in hospital for—			In hospital only		
		Medical and surgical cases	Medical cases only	Home and office only	Medical and surgical cases	Surgical cases only	Hospitalization
<i>Number</i>							
Total	3,320,408*	2,287,677	33,786	91,703	171,900	621,089	2,441,088
Industrial	1,425,325†	1,175,619	4,986	77,573	7,906	44,988	1,319,738
Medical society:							
Washington and Oregon	230,147	230,147	—	—	—	—	230,147
Other States	711,665	69,558	3,039	—	90,808	548,260	59,732
Private group clinic	490,980	400,849	24,287	—	65,844	—	444,964
Consumer-sponsored	176,841	156,709	1,474	14,130	3,742	786	101,057
Governmental	243,295	243,295	—	—	—	—	243,295
Unclassified	42,155	11,500	—	—	3,600	27,055	42,155
<i>Per Cent</i>							
Total	100.0*	68.9	1.0	2.8	5.2	18.7	73.5
Industrial	100.0†	82.5	0.3	5.4	0.6	3.2	92.6
Medical society:							
Washington and Oregon	100.0	100.0	—	—	—	—	100.0
Other States	100.0	9.8	0.4	—	12.8	77.0	8.4
Private group clinic	100.0	81.6	5.0	—	13.4	—	90.6
Consumer-sponsored	100.0	88.6	0.8	8.0	2.1	0.5	57.1
Governmental	100.0	100.0	—	—	—	—	100.0
Unclassified	100.0	27.3	—	—	8.5	64.2	100.0

* Includes 114,253 persons, 3.4 per cent eligible for hospitalization only.

† Includes 114,253 persons, 8 per cent eligible for hospitalization only.

physicians ranks second in membership and third in number of physicians. New England with the lowest membership (13,000) ranks fourth in number of physicians (3,800).³

SERVICES PROVIDED

Prepayment organizations vary greatly in the scope and combinations of services provided, and many different limitations are placed on the amount of care furnished. Some organizations limit the total money value of the services that may be received for a single illness or during a single year. Some make a separate charge

for the first one or two visits received in each illness or for the first or all home calls. Almost all limit the number of days of hospital care provided, and many exclude care for pre-existing conditions and for certain diseases. The summary of services provided, as presented in Table 3, does not indicate any of these limitations, nor the inclusion or exclusion of maternity care. No distinction is made between serv-

³ The rank of other regions with respect to membership and number of physicians is as follows: West North Central, fourth and fifth; East South Central, fifth and ninth; South Atlantic, sixth and seventh; West South Central, seventh and sixth; Mountain, eighth and eighth.

ices covered by the prepayment contract and those offered to subscribers' dependents on a reduced fee basis.

Relatively complete physicians' care was available to about 70 per cent of all persons eligible for care under the 214 plans, that is, physicians' care in the office and home, and care for both medical and surgical cases in the hospital. At the other extreme, the only physicians' care available to about 19 per cent of the persons was care for surgical cases in the hospital. About three-fourths of all eligible persons were entitled to hospitalization as one of the services provided, while most of the remaining quarter probably also had hospitalization on a prepaid basis, through a contract separate from their medical service contract.

The medical society plans in Washington and Oregon and the governmental plans all give a relatively comprehensive type of service. The industrial plans rank second with about 80 per cent of the total persons covered being entitled to relatively complete care in the office, home, and hospital. Relatively complete services were available to 77 per cent of the numbers

in private group clinics, and 57 per cent of those in consumer-sponsored plans. The scope of care provided by medical society plans in states other than Washington and Oregon is generally much restricted—primarily to surgical care in the hospital. About 77 per cent of their members were entitled to receive only such care, about 13 per cent were eligible for physicians' care in the hospital for medical as well as for surgical conditions, while less than 10 per cent were entitled to receive physicians' care in the office, home, and hospital as well as hospitalization under the prepayment contract. It should be pointed out that many persons eligible for care in the medical society plans outside Washington and Oregon, also belong to Blue Cross hospitalization plans under separate arrangements not summarized in this study.

About half the persons eligible for services in the 214 prepayment medical care organizations in 1943 were also entitled to some type of dental service on a prepayment or reduced fee basis (Table 4). Over a half million persons were entitled to receive a substantial amount of dental care

TABLE 4. NUMBER AND PERCENTAGE OF PERSONS ELIGIBLE FOR DENTAL SERVICE UNDER PREPAYMENT MEDICAL CARE ORGANIZATIONS BY TYPE OF ORGANIZATION

Type of Organization	Total	Number Eligible			Total	Percentage Eligible		
		For substantial service*				For substantial service*		
		On prepay-ment basis	On re-duced fee basis	For minor service†		On prepay-ment basis	On re-duced fee basis	For minor service†
Total	1,792,475	503,683	348,460	940,332	54.0	15.2	10.5	28.3
Industrial	959,114	149,699	267,992	541,423	67.3	10.5	18.8	38.0
Medical society:								
Washington and Oregon	189,147	—	—	189,147	82.2	—	—	82.2
Private group clinic	330,419	100,000	73,831	156,588	67.3	20.4	15.0	31.9
Consumer sponsored	71,498	28,484	6,637	36,377	40.4	16.1	3.7	20.6
Governmental	242,297	225,500	—	16,797	99.6	92.7	—	6.9

* Extractions, fillings, and at least one other type of dental service.

† Usually one or two types of dental service, not including both extractions and fillings.

on a prepayment basis, that is, at least extractions and fillings and one other service, usually prophylaxis or x-ray examination; about 350,000 could receive similar services on a reduced fee basis, and an additional 940,000 were entitled to receive one or two services on either a prepayment or a reduced fee basis. Dental care is provided more frequently by governmental plans than by any others. A large proportion of all the persons eligible for fairly comprehensive dental care were members of governmental plans, or were agricultural groups in consumer-sponsored plans financed in part from federal funds. No medical society plans in states other than Washington and Oregon provided any type of dental service. About 80 per cent of the members of medical society plans in Washington and Oregon could receive one or two types of dental service; none of the 12 plans giving dental service provided more comprehensive care. Fifty out of the 113 industrial plans made some provision for dentistry. Although some type of dental care was available to 67 per cent of the members of industrial plans, half of the persons were entitled to relatively little care.

One plan which indicated that it provided dental service did not report the number of persons eligible for care and so has been excluded from the analysis of dental services provided. Of the 98 other plans which provided information on dentistry, 55 did not report the number of dentists associated with the plan; 16 specified that dentists in the community provided service but they did not specify the number; and the remaining 27 organizations reported that they employed 88 dentists on a full-time basis and 83 dentists on a part-time basis.

Of the 98 organizations providing some type of dental service, 75 gave x-ray serv-

ices; 69, extractions; 40 prophylaxis; and 31, fillings. About one and one-quarter million persons were entitled to receive x-ray service, about an equal number could obtain extractions, while 850,000 were entitled to fillings and 795,000 to prophylaxis, either on a prepayment or a reduced fee basis.

MEMBERSHIP RESTRICTIONS

Since membership in nearly all prepayment medical care organizations is voluntary, various restrictions have been necessary to prevent the adverse selection so frequently associated with voluntary insurance arrangements. It has not been possible to summarize data on the types of illnesses excluded or subject to a waiting period before the member is eligible for care; but restrictions relating to age, physical condition, and income class have been classified in Table 5.

To protect themselves against adverse selection many plans accept only members belonging to groups not formed primarily to obtain prepaid care; also, they establish certain age and sex restrictions and an entrance physical examination. Some plans exclude persons with incomes above a certain specified maximum; some are counted as having income restrictions which accept persons in higher income groups but permit the physicians to make an extra charge to these patients for the services they receive. Medical care organizations counted as requiring physical examinations include industrial plans in companies requiring such examinations before the worker is hired.

AGE RESTRICTIONS

Over one-third of the 214 prepayment organizations have age restrictions. Some plans restrict the subscriber or the subscriber and adult dependents; others have

TABLE 5. NUMBER OF PREPAYMENT MEDICAL CARE ORGANIZATIONS HAVING SPECIFIED MEMBERSHIP RESTRICTIONS, BY TYPE OF ORGANIZATION

Type of organization	Total number of organizations	Number having no restrictions	Number having only 1 of 3 restrictions			Number having only 2 of 3 restrictions			Number having all 3 restrictions
			Entrance physical exam.	Age restriction	Income limitation	Entrance physical exam. & age restriction	Age restriction & income limitation	Income limitation & entrance physical exam.	
Total	214	52	71	26	10	33	11	3	8
Industrial	113	18	57	7	5	21	1	2	2
Medical society:									
Washington and Oregon									
Oregon	15	4	4	—	—	2	2	1	2
Other States	18	1	—	8	2	—	7	—	—
Private group clinic	24	6	3	5	3	5	—	—	2
Consumer sponsored	29	16	3	3	—	5	1	—	1
Governmental	12	7	4	—	—	—	—	—	1
Unclassified	3	—	—	3	—	—	—	—	—

restrictions for children. In the industrial plans there is a marked difference in the age restrictions imposed by those giving care only to subscribers and those providing services to dependents also. Among the 71 plans that give care only to employees, only 14 have age restrictions, mostly between ages fifty and seventy.

Among the 42 industrial plans giving care to subscribers and dependents, 17 have age restrictions but most of the restrictions apply to the dependents, especially to the children. In only 6 plans do they apply to the subscriber. Almost all medical society plans impose some type of age restriction, whereas only 10 of the 29 consumer-sponsored plans have age restrictions. Of the 20 private group clinics that give care to subscribers and dependents, 11 have age restrictions but no 2 have identical restrictions.

ENTRANCE PHYSICAL EXAMINATION

The requirement of an entrance physical examination is the most common restriction applying to over half of all plans. It is used particularly in industrial plans. Since there is such a close relationship be-

tween pre-employment examinations and entrance physical examinations, the following detailed statement concerning the 113 industrial plans may be of interest:

Forty-five plans require a pre-employment examination; which in 39 also serves as an entrance examination for the medical care plans. In 3, a second examination is required in all cases, and in 3 it is required only if the employee did not join the medical plan promptly after employment.

Thirty-seven plans require an entrance examination although no pre-employment examination is required.

Thirty-one plans require neither a pre-employment examination nor an entrance physical examination; in 4 of these plans, an entrance physical examination is required if the employee did not join the medical plan promptly after employment.

Nine of the 15 medical society plans in Washington and Oregon require an entrance examination; one requires it only under certain circumstances; and one limits the requirement to persons over fifty years of age. The medical society plans in Washington and Oregon were originally developed with the cooperation of indus-

tries and it may well be that the 6 plans having no entrance physical examination may accept only employees in industries that require a pre-employment one. None of the medical society plans in other states requires entrance physical examinations.

Among the private group clinics, 10 of the 24 plans require an entrance physical examination; the requirement in 5 applies to all subscribers and to all dependents. The other 5 plans limit the requirement to all persons over fifty years of age, all persons except male subscribers under fifty years of age, or persons who joined through nongroup contracts.

Less than one-third (9 of the total of 29) of the consumer-sponsored organizations require a physical examination; 6 plans require it of all persons, one accepts children without examination but requires it for the subscriber and for all adult dependents; one limits the examination to nongroup members, while another requires it for all except those who join in a group which represents at least 75 per cent of the total number in the group.

Only 5 of the 12 governmental plans have entrance physical examination requirements but in only one of these are examinations required of all employees. In one it applies only to dependents and in 3 it applies only to certain civil service classifications.

INCOME RESTRICTIONS

Probably more discussion has centered around the question of appropriate income restriction and its advantages and disadvantages than about any other single entrance requirement. Income restriction has been used chiefly by medical society plans but lately the tendency in these plans has been to abolish this restriction and to substitute the specification that physicians may make extra charges to persons in

families with incomes above a specified amount, or to those using an expensive type of hospital accommodation.

The income restrictions used in 2 of the medical society plans in Washington and Oregon vary with the size of the family and range from \$1,800 to \$2,200 in one case and from \$2,400 to \$3,000 in another; 2 plans have flat restrictions, one of \$2,400 and one of \$3,000, while in the fifth and last plan the amount varied with size of family and was dispensed with only in groups having 100 per cent membership.

Half of the 18 medical society plans in other states have income restrictions. In 4 of these the amount varies with the size of the family. For subscribers with no dependents, the range is from \$1,400 to \$4,200; in families of three or more, the restriction ranges from \$2,000 to \$4,200. Five plans accepted subscribers regardless of income but specified that the physician might make an extra charge if the family income was over a stated amount, which ranged from \$1,560 to \$3,000 for single subscribers and from \$2,500 to \$3,000 for families of five or more. In one plan which has no income limit and in one which does, the physician may make an extra charge if the patient uses a private room.

Private group clinics are less apt to have income restrictions, but in 5 plans having them in general the income level exclusion is higher than in the medical society plans. They range from \$2,400 to \$4,000 for single persons; between higher amounts for families. One plan which accepts the subscriber regardless of income excludes the spouse or a dependent who has wages over \$10 a week while another excludes officials of the company in which group contracts are in effect.

Less than one-tenth of the industrial medical care plans have any type of income restriction. The consumer-sponsored

organizations generally have none. The 2 organizations which reported income restrictions excluded or permitted extra charges to be made to single subscribers with incomes over \$1,800 or \$2,000 a year and families with incomes over \$2,500 or

\$3,000 a year depending on size. The only governmental plan which makes any specification with respect to income states that persons with incomes over \$4,500 need not belong to the otherwise compulsory plan.

7. Why Medical and Hospital Service Plans Should Be Jointly Operated, *by Jay C. Ketchum**

THE difficulty of discussing the joint operation of hospital and medical service plans is because these advantages seem entirely obvious. With one exception, there is no reason why the two services should not be operated as one plan. The exception is the feeling on the part of both physicians and hospital administrators that each has its own distinctive field and that the two cannot be wholly merged.

The high standards achieved by both professions in the past certainly offer strong evidence that preservation of their individual identities has fundamental merit. Their past progress, in fact, is another plain demonstration of the validity of the democratic notion that, with due regard for human relationship, the system which cherishes the interest of individual persons and individual groups is both the most just and ultimately the most progressive. It might be added that the democratic concept of adequate checks and balances perhaps can be discerned in action here.

The question can be asked, then, whether joint operation of hospital and medical or surgical service plans foreshadows any change in physician-hospital or physician-patient or hospital-patient relationships as they have been established in the past. The answer is absolutely none, except possibly for the provision of better service to the patient and the attainment of better understanding by the hospitals

and physicians through collaboration of what is, by its very nature, a mutual problem of equal concern to each group.

Neither hospitals nor physicians are required to surrender any of their "rights" when joint operation of service plans is undertaken. Neither group is required to part with any individuality it already possesses. Neither must relinquish any of its sovereignty, if you wish to apply this term.

What actually happens is that the two continue exactly as they have in the past, presenting a joint service to the public with mutual agreement on the technique and the policies that will make that service the best possible.

To arrive at this conclusion, it is necessary only to analyze the working of existing hospital-medical service plans in detail. From the organizational standpoint, there are four broad subdivisions of activity within these plans—sales, record keeping, administration, and service.

Taking them each in turn, the selling of hospital service and medical or surgical service cannot be broken down into two separate endeavors with any degree of lasting success. Both tradition and logic are against it. There is no sharp distinction between the two from the viewpoint of the public. To the man in the street, one is regarded as simply an extension and comple-

* Adapted from *Hospitals* 17:61-62, Aug. 1943.

ment of the other, and the average citizen would think you were crazy if you asked him which comes first. He wants health care—complete health care. True enough, he pays from his own pocket, when and if he gets around to it, a variety of individual bills for health service if he is not protected by service plans. But he charges them all up in his mind, and in his income tax return, to a single heading—medical and health expenses.

Furthermore, methods of prepayment for these services have been lumped for generations. Commercial insurance, in fact, often goes much further than that and offers one policy covering not only surgical and hospital care but at least part of most of the other expenses that a person is apt to incur when sickness or injury takes him from gainful occupation and presents him with a handful of unexpected bills.

This is the traditional aspect of prepayment schemes, and it has existed long enough and spread far enough so that the salesmen of service plans are confronted with very real public opposition as they try to divorce what logically are component parts of the same thing. Rather than registering elation because he can buy both hospital and surgical protection in a single package, the purchaser is inclined to grumble because still broader protection is not assured.

Consider too the hostility of the employer who is approached with the proposal that he make two separate payroll deductions for hospital and surgical protection for his employees. Many employers, including Uncle Sam himself, still will not tolerate payroll deductions of any sort except those made pursuant to law. It is exactly twice as hard to sell two payroll deductions as it is to sell one, according to those of general experience in the

field. One addition may not make any difference to some employers whose resistance to the idea has finally cracked, but there is certainly a proportionate number of others who would adopt one deduction offering reasonably comprehensive protection when they would reject instantly any deductions for programs offering limited benefits.

Once your sale has been completed, the problem of keeping records develops. There is no logic in separating the records of hospital and medical care plans. By making them joint, the effort and expense involved are virtually cut in half. The same record cards and filing cabinets need not be duplicated. One tabulating and billing set-up takes the place of two. There is only one payroll, and while personnel may not be halved, it is certainly cut 25 or 30 per cent. In normal times, there is a further saving from joint purchases which enable volume discount.

What applies to records applies equally to administration of jointly operated plans. The over-all monetary savings alone are impressive. Conservatively, it would cost at least 50 to 60 per cent more, through duplication, for hospital and medical plans to operate separately.

It is, after all, only when you come to service that there is evident any perceptible separate interest. Two different groups are providing the service; they must be paid separately; in many instances, representatives of these groups alone are qualified to judge the legitimacy of claims by individual members of a group.

There is nothing, however, in joint operations that precludes full recognition of and provisions for these differences. The hospitals are not interested in settling questions which concern physicians, and the reverse is equally true. This aspect of joint operation is simply one of each

group devising the techniques for handling its own problems within the large framework, and in practical experience that is exactly what occurs.

As mentioned at the start, these details seem so obvious as hardly to need discussion. Most individuals who have done any unprejudiced thinking about the matter, whether they are hospital administrators, physicians, or plan administrators, have reached these conclusions for themselves. I am aware, however, that this is not the real question; quite rightly, neither group wants to lose its identity, and sometimes it has a vague feeling that the other group may come to have dominant voice in the operation of the plan. I submit that, if this were so, it would not be a true joint operation, which is what we are discussing. A fuller analysis demonstrates further that this attitude has no foundation in fact or experience.

What is involved here actually is a matter of personnel. Starting again at the beginning, the individuals who sell a joint plan are neither hospital administrators nor physicians. They are salesmen, as they must be. It requires no training as either physician or hospital administrator to sell the idea of prepayment for hospital and medical care. There may be some individuals trained in these specialties who are at present representing prepayment plans, but, if so, they have forsaken their earlier training and entered a new activity related to the first only by chance. It is inconceivable that many successful physicians or hospital administrators could want to become salesmen or they would have entered selling before this. Your plan salesman, then, is a layman no more

interested in one side of the produce he is selling than he is in the other. In this sense, he and his fellows cannot influence the operation of a joint plan.

The same point applies to the keeping of records. Although the specialists here sometimes may have worked in hospitals, they seldom have a medical background. A hospital is a business like a department store or a utility whereas a physician's office is not. Whatever the background of the record keeper, however, he has no voice in the operation of the plan, since his job is simply to record facts, which cannot be altered or affected by the recorder's points of view.

In administration and in service, both hospital administrators and physicians comprise part of the personnel. This is an obvious necessity. It could not be a joint operation otherwise. And it should be plain, likewise, that either group is far less likely to progress at the expense of the other when both are working together under the same roof.

Again, most of this discussion is unnecessary for those who have given thought to this matter, and it is only to the extent that it may prompt thought on the part of others that analysis has any value. There are, in fact, many physicians and hospital administrators who have not had the opportunity to examine the situation fully, since this movement still is new. To these latter, let me say sincerely that, in my own experience, I have yet to encounter a physician or a hospital administrator who, upon examining or participating in a jointly operated plan with an open mind, has not become genuinely and even enthusiastically "sold" on the idea.

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CHAPTER XXXII. PUBLIC HEALTH

1. Public Health Need Not Mean Regimentation, *by Morris Fishbein, M.D.**

THESE are times of vast change in the field of medicine and in the field of public health. What was once considered to be the field of public health is no longer that. The field has expanded so greatly, with changing views and new discoveries in medicine, that we have to have a new concept of the term "public health."

In an address which I made before the American Public Health Association some fifteen years ago, I emphasized the concept which then prevailed—that in the field of health everything concerning the community as a whole was a matter for the public health officer. Now that made it very simple. That is the kind of definition that is so simple that it is simple-minded.

It merely meant that the doctor was entirely responsible for anything that was done to the body of the individual in the way of immunization, in the way of treatment of disease, in the way of diagnosis of disease in the individual, and that public health was primarily responsible for the control of good mass inoculation in time of epidemic and the prevention of epidemic disease.

Nowadays public health has a much broader concept, and medicine has a much broader concept of what is involved in the field of public health. There is not a specialty in medicine—we are today probably the most specialized of all the professions—which does not concern itself at one point or another with a public health activity.

Think of the work of the roentgenologist in the diagnosis of tuberculosis; of the gynecologist and the obstetrician in

prenatal care; of the pediatrician in the immunization of children against various types of infectious diseases. Think of preventive surgery in the form of early removal of precancerous conditions. Today what we consider to be preventive medicine and public health has vastly expanded from the concept that was held some fifteen or twenty years ago.

Again, we like to think of public health as something quite recent, something which we, modern men, have invented, and yet the most important single step in public health, namely cleanliness, and cleanliness through routine washing of the hands, was a technique that was developed at least 2,500 years ago. It still constitutes a part of a great many religious observances in many living religions.

Our problem in these modern times is to determine where public health, as applied to the individual, continues to be an individual matter free from regimentation. That is the continuous battle of the physician of today—how to secure all of the great advantages that public health can give to mankind and still permit the individual to be a human being with his own soul. There, of course, is the great conflict before the press and public audiences and medical and hospital and similar organizations throughout the year. You need only to reduce it to the absurd, as in the case of Hitler—who made his nation healthy by killing all the sick—to realize that there must be somewhere along the line a point where public health

* Adapted from *Hospitals* 19:39-41, Feb. 1945.

is distinctly an individual matter, not a matter for the state.

The medical profession has been from the very first a leader in the field of public health. Many public health officials doubt that statement. They say, "Well, just look at the doctors. What do they do in the field of public health?" Every public health procedure had to be developed at some time or another in relation to an individual before we began thinking of it in terms of application to the mass.

We had to learn about the value of x-ray of the chest on the individual before we could consider routinely x-raying the chest of every patient who at any time enters the hospital. In the same way, we have had to learn about a great many other public health matters on a small scale before we thought of them in application to the mass.

I think of what was probably the most important single step in the development of the campaign against tuberculosis, the abolition of public spitting and the abolition of the common drinking cup. We like to think that we have proceeded far along the line of control of tuberculosis by the development of the tuberculosis sanatorium, by the development of mass roentgenology of students in school, by the use of the tuberculin test in a similar way.

But if we think back to the years 1905 and 1910 and the great public campaign that was then waged in the press and by every technique known to the public relations man of that early day, we realize that that was the real beginning of the campaign against tuberculosis.

Again, the contribution of the physician from the point of view of treatment is interesting because it emphasizes how our whole attitude in relation to the control of disease can change.

Obviously, the treatment of every case of syphilis to the point at which it becomes noncontagious, if not cured, is the real answer to the problem of the control of syphilis. We have fought for many, many years to control syphilis as a venereal disease, but no real progress was made against the disease until the development of the Wassermann test, with later modifications. Then came the treatment by arsphenamine, or "606," or salvarsan. We had a specific method of treatment which could accomplish results beyond any previously considered. Then came bismarsen and mapharsen.

We had in different countries the attempt to control syphilis by policing, by techniques which would isolate the person with syphilis and make treatment compulsory, but never with the best that we could apply from the point of view of using the police as a public health weapon were we able to control the spread of syphilis with anything like the scope that is demanded if the disease is to be completely eliminated.

Now we come to the period of penicillin in the treatment of syphilis, and the evidence already available indicates that in the not too distant future the vast majority of all cases of syphilis will be treated by a period of anywhere from five to ten days of hospitalization, with continuous intravenous application of a remedy.

We have changed the control of this disease from the treatment of ambulatory patients over a period of three years to the treatment of hospitalized patients over a period of five to six days. Anyone interested in the growth and development of hospitals will realize that this is going to be quite a new function in the field of hospitals, demanding new facilities which most of our hospitals do not now possess, demanding new types of techniques not

available in most institutions at the present time, and likely to change completely a considerable portion of one aspect at least of the work of the hospital.

It is interesting also to consider the change that has taken place in the treatment of pneumonia. Pneumonia was distinctly a portion of public health work of the hospital at the time when the proper treatment of pneumonia included, first, a typing of the specific form of pneumococcus from one to 28, and then the selection of a specific serum from one to 28, in order to give that patient the serum specific for the type of pneumococcus that he had.

With the coming of the sulfonamide drugs and of penicillin in the treatment of pneumonia, with the coming of established routines in the use of oxygen, with an understanding of the great importance that these things, combined with good nursing, can do in pneumonia (giving our army a rate, incidentally, in this war for the whole army, of a fraction of one per cent compared with a rate of 17 per cent mortality in World War I), you will get an idea of how the whole function of the hospital is going to change in relation to control of pneumonia from the public health point of view.

I am interested at the moment in another point of view which was brought out by an incident that occurred in connection with our publication, *Hygeia*. We printed an advertisement of the Advertising Council, which is an organization of all the advertisers, to help the government, showing a cracked cup. We suggested in the advertisement that now, since we were short of help and short of utensils of various kinds in the war period, it would be a good idea to take good care of the cracked cups and to use them to the best possible advantage.

You would be amazed to know how

many letters I received from doctors and nurses and sanatoriums all over the United States, asking when medicine had changed its point of view relative to the use of cracked dishes and cracked cups. I hadn't stopped to think. When did we change our point of view? Obviously we should have changed our point of view long before we did.

The advertisement makes us change our point of view. We discover that by suitable modern dishwashing apparatus you can go ahead using cracked cups, without fear of transmitting infection through the use of a cracked cup or cracked dish, just so long as your dish-washing equipment is adequate and is operated adequately.

With the growth of various medical specialties, there has come the specialty of industrial medicine. Before we entered the war, we had in the United States perhaps a thousand doctors who gave their full time to industrial medicine. We will come out of the war with possibly eight to ten thousand doctors who are giving practically full time to industrial medicine. There has grown here a great new specialty in medical practice.

As the specialty of industrial medicine grows, it carries with it aspects in relation to the public health phase of medical practice. Industrial medicine, with the consent of the CIO and the AFL, is undertaking a complete physical examination of each worker before entrance into employment. The point of view of labor has changed considerably about the periodic physical examination and about the complete physical examination before entering employment. It took many years to educate them that such examination was primarily for the benefit of the worker and not for the benefit of the employer or the insurance company.

There are still various agencies in labor

who oppose x-ray of the chest previous to employment because they fear that some worker with incipient silicosis is going to be deprived of a pension for the rest of his life. They don't like to have that fixed on some previous employment from which he cannot collect.

Nevertheless the general benefits involved are likely to influence ultimately all of those interested in the future of labor from the point of view of health. It is likely that a complete physical examination, including x-ray, prior to employment, will be part of every great industry in the United States before long.

There are many other aspects to the work of the industrial physician. I turn to a changing point of view in relation to mental and psychiatric examination in industry. I recently visited one of the great motor companies, employing more than 400,000 men and women, which has a medical staff of thirty or thirty-five physicians to do the routine work.

I found they were giving the Minnesota Multiphase Personality Test to every worker who applied for employment, and they were gradually catching up on the workers they already had. They were endeavoring to find out which workers were likely to break down under the stress of certain employment, which were accident prone, and which were not accident prone.

I suppose of all of the various practices and of the various specialties in medical practice, the specialty of neuropsychiatry is most individual. This specialty demands always intimate personal relationship between doctor and patient if the best results are to be achieved. But already, even in the field of psychiatry, the application of group methods of diagnosis and group methods of treatment is coming into effect

simply because the needs of the people in this field are so great and the number of available specialists and those capable of conducting the work is so small that it is impossible to make progress without accepting the idea of group handling of men for this particular purpose.

We see the development of such techniques as group treatment and the psychodrama and the musical treatment, and similar methods which are applied to large masses of men. Some methods are still experimental.

Finally, I turn to what has already been mentioned as the National Campaign for Physical Fitness, in which the National Committee on Physical Fitness and all the organizations in the United States concerned with physical fitness, all of the physical educators, have combined with the American Medical Association in a voluntary effort to carry out throughout the nation, on a voluntary basis, a campaign for physical fitness.

The health center is a growing agency in the field of American medicine. I can remember when there were eight of them—today there are almost 600 health centers in the United States. With the development of new techniques and new facilities in the field of medicine, we constantly organize and reorganize our points of view. We have to redefine our terms.

We must approach each of our objectives with an understanding of exactly what is meant. I think we must all realize that there are two horns of a dilemma. We find ourselves with the desire to maintain individual human beings, as representing the most that can be made out of a human being.

We find ourselves on this side with a tremendous desire to organize from above, to control from above, to regiment. We can accomplish with regimentation, we

think, much more rapidly. We can get such tremendous results with regimentation that perhaps we ought to disregard those people over on that side who say, "What does it benefit a man to encompass the world if thereby he loses his own soul?"

I find, in reading all the various periodicals in the field of medicine and medical economics in the hospital, that there goes on constantly in this, our democracy, a sort of hidden battle as to who is to dominate the field of medicine and public health in the future. Is it to be the physician? Physicians say, "Yes."

Is it to be the hospital? A good many hospital administrators say, "Yes. The only way to organize medicine for service in the future is to have it organized in the hospital and under the control of the hospital administrators and associated Blue Cross and similar plans."

I find many of the economists, sitting in Washington in the Federal Security Agency—Mr. Michael Davis, Mr. Isidor Falk, Mr. Wilbur Cohen—saying that neither doctors nor hospitals know anything at all about business. They ought to

see you people working on those balance sheets! They should see a doctor working on his income tax, and they would realize he knows a great deal about business.

But they say the doctors know nothing about business, the hospital administrators know nothing about it. They say, "These things should be conducted by economists."

Then the public health officials say, "Public health is a new profession, and we are the ones who are learned in the field of public health, and we should have the control."

Of course, none of them should have control. Nothing will ever be accomplished without a completely cooperative effort in which all will join together for the common good. It must be recognized that the traditions of medicine which have come down for some thousands of years, and the ethical standards, and the quality of medical education, and the special problems that come with an understanding of the nature of disease—its causation, its prevention, and its cure—must underlie every measure that is taken for the benefit of public health.

2. As the Basic Emphasis on Public Health Shifts, Hospitals Must Share in Community Problems, *by Hugo V. Hullerman, M.D.**

HOSPITALS and public health organizations have experienced their most rapid growth in the last forty years. Two such closely allied movements, expanding rapidly during the same period, could not have reached maturity and still be utter strangers. Although every hospital has contributed to the health programs in one way or another—through clinics, laboratory service, EMIC program—it may help us to consider intelligently the role of hospitals in public health of the future if we

visualize in broad terms what is meant by the "changing pattern of public health."

Centuries ago public health consisted of isolating some sick people in lazarets or pesthouses. In the Grecian era public health emphasized physical fitness and personal hygiene, exemplified by the Olympic games and the Greek athletes. During the Dark Ages interest in personal hygiene lagged, and public health hit bottom; then followed a long period of re-

* Adapted from *Hospitals* 19:34-37, Jan. 1945.

markable interest and progress in sanitation of the environment, typified by the empirical sanitary regulations of the 1700's and 1800's in England and the United States.

With the discovery of infectious bacteria and their relationship to disease—you will recall that this attained significance only within the last seventy-five years—public health again shifted its emphasis. Infectious diseases as specific entities, and their control by new methods such as immunization and disinfection, became of primary concern. Recently there has been a return to emphasis on the value of good personal hygiene. As will be pointed out, we are now passing through as important a transitional stage as any of the past and, in truth, we are living this evolution ourselves.

The first important point I wish to make is that up to now each new public health trend emphasized prevention, not treatment. We know now that the control of some diseases—for example, tuberculosis and syphilis—depends upon treatment. Treatment thus becomes prevention.

Furthermore, health authorities have seen the excellent results which can be obtained by organized efforts to control disease by treatment.

The second important point is that public health programs for the control of disease can no longer separate prevention from treatment; and that forces hospital care into the field of public health. Two or three examples from public health literature reveal the new trend.

Joseph W. Mountin said in 1940: "The changing nature of public health has shifted the general hospital into public health prominence. That is just one of those facts of life which we could not dodge if we wanted to. Even circumscribed programs of public health may

demand the use of hygienic laboratory, the x-ray, the electrocardiograph, basal metabolism apparatus and similar aids to diagnosis and therapy.

"Health departments of today require clinic facilities and many of the patients who come to those clinics will prove to be in need of bed care. Hospitalization is absolutely necessary in numbers of maternity cases. Some of the venereal disease cases can be treated to better advantage in hospitals than on an ambulatory basis. Tuberculosis sections to general hospitals are now being recommended by many authorities. The old isolation hospital is losing vogue, for with modern technique and facilities communicable diseases may readily be handled in a unit of a general hospital."

Ruhland states: "It is the writer's personal experience through a considerable number of years of service in public health that a more efficient and, therefore, more economical service can be rendered when clinic and hospital services are not separated from the general health department program."

Health Commissioner Godfrey of New York said: "It seems entirely proper, however, for health departments to take a greater interest in the work of hospitals and groups giving medical care on a prepayment basis."

There are scores of such comments (some of which are visionary) in the literature, from which one might imagine that health authorities know exactly what they want to do and precisely how they are going to do it. As a matter of fact, their thinking is still only in broad terms, not in details. They are slowly assimilating a new idea, getting the "feel" of a new problem. Their efforts in the past, directed mainly toward the control of communi-

cable diseases by prevention, now include control by treatment. There are many who believe with reason that emphasis will shift rapidly to include non-communicable diseases.

Mortality is a good criterion of need. Among the ten leading causes of death less than half are communicable diseases, and some of them did not receive much attention of health departments in the past. It is to be expected, therefore, that on the basis of first things first, health department interests and activities will break out of old-time boundaries.

Larger appropriations for official health agencies are speeding this metamorphosis. For example, in the prewar years 1935-1940 state pneumonia control programs grew from none in 1935 to 14 in 1940. There were three state cancer control programs in 1935, 16 in 1940. There were 15 state dental control programs in 1935, 38 in 1940; 762 counties under full time health departments in 1935 increased to 1,577 in 1940.

In some cases hospitals can contribute to health programs. In other cases health authorities can promote more adequate and better hospital service.

It is well to stress the importance of greater participation by hospital administrators in all community health projects.

Immunization against smallpox, diphtheria, and whooping cough will continue to be necessary in all communities. Fairly successful community levels of immunity are often attained through the efforts of public health personnel. Communities rarely maintain adequate immunization unless there is an organized program. Hospitals may or may not be called upon to assist. Factors which tend to bring about inclusion of hospitals are: (1) physicians' offices in hospitals; (2) public health clin-

ics in hospitals; (3) health department headquarters or branches in hospitals; (4) hospital administrators on community health planning committees.

Although these things may develop, at present they are not common. In general, we conclude that hospitals are now only incidental to the immunization programs, but as hospitals become in fact community health centers, there should be increased participation.

Public health agencies have been hesitant in using hospital laboratories in official programs because there has been little standardization of their quality of service. Health agencies could help to standardize the quality of work done in hospital laboratories for those administrators who wish to accept such service. The benefit to a community of officially acceptable diagnostic laboratory services locally available is readily apparent.

Other diagnostic services for which health authorities should naturally turn to hospitals are in tuberculosis, cancer, and cardiovascular diseases. Granting that diagnosis is a medical function, complete diagnosis involves apparatus often readily and economically available only in hospitals. Whatever local arrangements are worked out with the professions involved, it would appear to be to the advantage of the patient, the medical professions, and hospitals to assure hospitals an important part.

It seems that health authorities and hospital administrators have both missed one opportunity for betterment of community health, and either one might have made the suggestion if there had been an awareness of the other's potentialities. In the diagnosis of tuberculosis, for example, a routine x-ray of the chests of new hospital admissions, followed by a report to the health officer of all suspected cases and intensive

follow-up by him of contacts, would materially reduce the number of undiagnosed cases in any community within a few years. Even in the past the not inconsiderable expense might have been met by community resources mobilized through the joint efforts of hospitals and health departments. The use of small film equipment in the future will greatly reduce the cost of such a program.

Cancer control programs will be expanded, probably through establishment of qualified diagnostic laboratories. Forward-looking administrators and hospital associations must cooperate with official agencies so that full use will be made of the hospitals.

The National Committee on Physical Fitness was enlarged recently to include equal representation by the American Medical Association. A fairly complete physical examination is almost sure to precede training and, if the program is carried to a logical conclusion, a wide open span of life will be included. A natural outcome would be increased emphasis on periodic physical examinations. If, as has been estimated, an annual examination of each individual would require half the time of all the peace-time practicing physicians, the use of various specialized types of equipment, and some standardization of procedure, then hospitals as health centers may be called upon to furnish part of the plant, equipment and personnel. In approaching the question of large-scale examinations, due consideration must be given to the relative advantages and disadvantages of programs conducted in physicians' offices, schools, industries, and hospitals.

At this place it may be well to develop another important point. Hospital administrators could "sit in" much more than they do with the health authorities,

physicians, and community organizations which plan and conduct local health programs. Many phases of public health are rapidly becoming hospital programs. For years the administrator in his own organization has been dealing with diverse groups and problems. He is essentially a coordinator and by experience is especially well equipped to assist in community planning to meet health needs. It will be necessary for him to take the initiative in educating his community and its organizations in the importance of hospitals in health programs.

Whenever payment is made by government, sooner or later minimum standards of care will be defined and rules and regulations will be formulated. These can be very beneficial to hospitals and in any event are vitally important to the administrator. For example, in some states the regulations for the care of communicable diseases in hospitals are said to be administratively unworkable. As a result hospitals cannot take communicable diseases. In how many instances have hospital administrators participated in the establishment of the regulations? Could the regulations have been more practicable if administrators had been asked for advice? It would be reasonable for administrators to make an effort to be a part of the planning, and it is definitely up to the administrator and hospital associations to promote an understanding of the need for such cooperation.

Most states have licensing requirements for maternity and nursery services in hospitals. In most states I venture to say these were developed for you, not by you. Granting that the decisions are often technical and medical or sanitary in nature, there will be a two-way benefit if administrators can voice their opinions in the planning and conduct of the programs. If you be-

lieve that hospitals ultimately will be licensed for all forms of care, now is the time to obtain representation on the planning boards and committees.

A natural corollary to licensing is the development of some method of evaluating the quality of service rendered. In the extent that hospitals accept payment from government they are subject to appraisal. The appraisal of hospitals participating in the EMIC program is government regulation without licensing.

That administrators are aware of the value of appraisal is evidenced by the voluntary application of several thousand hospitals for approval by the American College of Surgeons. Government's interest furnishes an additional incentive to administrators to use the professional service accounting described in the *Manual of Hospital Standardization* of the American College of Surgeons or other suitable accounting systems, so that they may determine the quality of service in their hospitals.

Public authorities, though interested in individual cases, must think of mass needs and results. For example, when considering the problem of prematures, their attention will be focused upon the total service available in a given geographical area. This may result in a decision to subsidize a few hospitals for premature care. Ambulance service to carry prematures to the regional centers may be established. Supervision is sure to follow. Regional specialization will not be limited to prematures. Since these plans require participation of hospitals, they should be developed with the assistance of the administrator.

The present trend is to stress the advantages of general hospitals for the care of many conditions previously treated in special institutions. Hospital authorities might well crystallize their ideas in this

respect, inform their membership and interpret their conclusions to the various planning bodies. It appears axiomatic that health programs involving hospitals should be built on sound principles of hospital administration.

Patient follow-up provides innumerable potentials for cooperation by hospitals with health authorities. Most administrators are acquainted with the recent Syracuse experiment designed to bridge the hiatus in patient care between time of discharge and return to hospital. If this deficit in care is sufficiently serious to the welfare of enough patients, it will become a problem of interest to health authorities. It will require health education to be successful, and health agencies are equipped to conduct educational programs in the health field. Hospitals and physicians will need to be informed, demonstrations may be required, and plans whereby hospital nurses and physicians can cooperate with health department nurses and physicians will need to be developed. Programs for follow-up of the sick after discharge from the hospital should be jointly planned by administrators, doctors, and health authorities.

Many hospitals furnish clinic and outpatient service to the community. Many more will do so in the future. The value of this type of service is greatly enhanced by an adequate nursing and social service follow-up in the home. Field nurses may be available from health departments, visiting nurse associations, insurance companies, other voluntary or public agencies, hospitals, and clinics.

If we assume—as we do—that the hospital of the future will be the health center of the community, is it not a prime responsibility of the administrator to make available to his inpatients and outpatients all of the services provided anywhere in

the community? To meet this responsibility requires extensive knowledge of community resources and the highest degree of cooperation by administrators with all of them. This thought is not new, but the extension of such cooperation by hospitals to patients not in hospitals is worthy of emphasis.

One has but to think of such things as care of the chronic, the staff nurse as an educator, mental hygiene and psychiatric programs, medical care plans, and the potentials for public education by hospitals in nutrition, in maternity care, etc., to realize the many areas not covered in this brief review.

The American Hospital Association has been aware of the tendency for health department and hospital interests to encroach one upon the other. Almost no phase of diagnosis, treatment, or rules and regulations for the health of the nation is now outside the pale of interest for hospitals. Cooperation has been the keynote of hospital-public health relationship for many years, but the need for cooperation now

is more important for all concerned, including hospitals, than ever before.

The study made in 1927-1928 jointly by the American Hospital Association and the American Public Health Association recognized their mutual interests and the need for cooperation. A statement of relationships was formulated. Again, in 1937, there was an extensive study by another joint committee of the same organizations. Perhaps this is an auspicious time to review relationships again and to develop new recommendations based on the rapidly moving events of the last seven or eight years.

In concluding this paper, I wish to stress once more a most important point: that planning and cooperation at the national and state levels, vital as they are, are not enough. Every hospital administrator—busy as he admittedly is—has a responsibility to his profession to see that his community's health program and his health department's activities have the benefit continuously of his participation, understanding, advice, and contribution.

3. Practical Ways to Promote Public Health, *by John L. Procope**

PRESENT conditions more and more point to the wisdom of and necessity for local community hospitals asserting themselves in public health leadership. The hospitals must themselves first realize and appreciate the strategic opportunity confronting them; they cannot afford to await the compulsion of forces from without before assuming this responsibility.

The modern hospital is considered an essential element in the program of public welfare. It has become the strategic center for the study of diseases in all their manifestations, for the development of new methods of diagnosis and treatment, for undergraduate and postgraduate medical

and nursing education, and for medical and social service.

Hospitals now working under most difficult conditions because of the war emergency have met these responsibilities with no little success. However, if they are to perform adequately their public health functions, they must have enlightened leadership and financial resources.

The hospital should cooperate with existing agencies by participating in health programs initiated by those agencies. A wide-awake and public-minded hospital should provide the facilities for other so-

*Adapted from *Mod. Hosp.* 62:75-76, Jan. 1944.

cial agencies to do a better health job than they are able to do alone.

In some instances, the hospital itself will blaze the trail toward community health improvement. Other voluntary and community-supported health organizations with which the hospital should cooperate will follow. Moreover, there should be close cooperation and coordination of effort between the federal, state, and municipal health services and local voluntary hospitals.

It is good public relations for the hospital to be more than a silent bystander as regards outside health efforts in its community.

Many communities have failed, for various reasons, to take full advantage of existing legislation that would permit development of much needed health services within the community. The voluntary hospital could and should be the focal point of information concerning such legislation and of the organization of procedures to obtain the benefits of these provisions to the community.

All communities will not be alike, but it is safe to assume that all will have health problems of some kind which organization and leadership could alleviate. The first step is to find the major problem and take steps for its solution.

After surveying the field, the hospital should decide which one of the community health deficiencies its particular facilities and resources will enable it to combat. This determined, the hospital should then develop a publicity and educational program that will acquaint the community with the nature of this health hazard, its cause, cure, and prevention.

At Flint-Goodridge Hospital of Dillard University, New Orleans, we have attempted to do some of these things. The development has been many sided. We

have striven to stimulate its growth as an institution to care for the sick and injured, crusaded for its place in the community as a health center by attacking those persistent health liabilities that the Negro's economic status forces on him, and developed educational and health programs for physicians.

With the opening of the new building in 1932, an analysis of the health situation as regards Negroes in New Orleans revealed some specific avenues that needed attention—maternal and child health, syphilis, and tuberculosis.

Of particular significance has been the development of our work in maternal and child health. Our local public health approach to this problem began toward the end of 1932 when we drastically reduced rates for maternity services below what was then charged by local midwives. This increased the number of obstetrical cases in the hospital.

We then employed a social worker who developed an educational program among lower-income groups, and aroused interest in and gave talks on the importance of proper prenatal, delivery, and postnatal care. This educational and public health experiment was of great community benefit and indirectly brought more patients to the hospital.

Aside from that, it lent impetus to the improvement of conditions in maternal and child health within the group of people served by this hospital. The number of births at Flint-Goodridge in 1932 was 63 as compared with 560 in 1942.

Until such time as enough physicians will be available in the rural areas of the South, a desirable step in improving the maternal and child health service would be the placing of graduate nurses who have also been trained in midwifery in these areas to operate in the employ of of-

ficial or voluntary health agencies under the direction of a physician.

In 1942, with the encouragement of the U.S. Children's Bureau and assistance from the U.S. Public Health Service and the Rosenwald Fund, we established a school to train graduate nurses in midwifery.

Our first step in tackling the syphilis problem in 1935 was a six weeks' program in public health education in conjunction with the New Orleans Social Hygiene Committee. This included lectures on social hygiene, sex education, and venereal disease control, presented in schools and colleges to faculty groups, to students above high school grade, and to parent-teacher associations.

Moving pictures were shown, a night institute for social workers and public health nurses was conducted, ministerial groups were consulted with a view toward encouraging proper medical examinations. In addition, biweekly seminars were held for physicians; we gave free laboratory service and drugs to those physicians who participated in the program. The U.S. Public Health Service and the American Social Hygiene Association cooperated by each lending a member of its field staff to help conduct the program. The New Orleans city health department and the state health department also cooperated.

Because Flint-Goodridge serves a Negro population, it was inevitable that the hospital would be interested in tuberculosis. A realistic analysis of health problems in any Negro community could not by-pass the scourge of tuberculosis—it is, admittedly, a disease of poverty. The Negro's low economic status and traditional poor housing, with the ensuing congestion, create a breeding ground for tuberculosis. The hospitalization of Negro tuberculous patients in Louisiana is a real problem.

Flint-Goodridge, with its present facilities and resources, cannot think of fully correcting the situation. We have, nevertheless, assumed some responsibility for control of tuberculosis in New Orleans through early diagnosis and ambulatory treatment. We established here the first pneumothorax clinic in the city—a treatment now used by all other major clinics in New Orleans. Realizing the futility of treating just the patient's disease, we were able to employ for the tuberculosis clinic a public health nurse whose responsibility it was to bring all cases into the clinic, to see that the doctor's orders were carried out at home, and to insist upon regular clinic attendance.

A biweekly seminar was held for the doctors. Those participating were given free tuberculin and free chest x-ray examinations for their private patients.

Throughout our development, we have recognized our responsibility to the Negro doctors in New Orleans and in this section of the South. One of our primary objectives has been the providing of educational opportunities for these doctors.

Each summer since 1936 we have held a postgraduate course in June. Twenty per cent of the Negro physicians practicing in Louisiana, Texas, Arkansas, Mississippi, and Alabama have attended at least one year. The large number of repeaters indicates the value which the doctors of the area place on the instruction they receive. Forty-seven registered for the course in June 1943.

A further development of our educational program was a series of weekly seminars, from October to May, conducted for members of the medical staff and doctors living within a radius of 150 miles of New Orleans. The faculty of these lectures, as well as those conducted during the summer postgraduate course, is made

up principally of professors in the Tulane and Louisiana State University medical schools supplemented by members of our own active staff and some nationally known Negro doctors.

In addition, we have presented an institute on public health with the cooperation of the Louisiana State Department of Health, the National Tuberculosis Association, the U.S. Public Health Service, and the U.S. Children's Bureau.

In 1942, Dillard University, of which we are a part, presented for one week during the summer a public health institute for public school teachers. This was repeated in 1943, and in addition there was presented a three-day institute specifically for ministers.

These are some of the things which we at Flint-Goodridge believed to be New Orleans' most pressing public health problems. As indicated, we have not been able fully to solve them. Some of them could not have been attacked at all without the help of other agencies. This is as it should be, because public health is everybody's responsibility.

All hospitals may not be able to carry out or even assist in the improvement of

many of the health deficiencies found in their communities because of limitations as to facilities and financial resources. They should, however, take the initiative in pointing out health needs to the community and its health authorities. The hospital may, in many cases, furnish the leadership and directives.

A by-product of this broader public health outlook by a hospital is the fine public relations that it develops within the community. In our case, the community knows we are interested in all its health needs. Representatives of the various voluntary and official health agencies know definitely of our existence and of our work; they know about our zeal for bettering the public health.

Our educational programs have enabled us to create better understanding between white and colored doctors. Doctors of both races have worked together without friction in the operating room, in the laboratories, at the patient's bedside—all for suffering humanity. A mutual understanding has been the result. This has happened in the deep South. We believe it has been good public relations, good race relations, and good for the public health.

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CHAPTER XXXIII. REGIONAL PLANNING OF HOSPITAL SERVICES AND FACILITIES

1. Population Density in Relation to the Size of Hospital Communities, *by C. Horace Hamilton**

IN rural areas, the determination of the size of hospital communities is an important problem in hospital planning.¹ The problem is a serious one in the sparsely settled rural areas. Hospital communities should be large enough to justify the building of a complete hospital and medical care unit and yet small enough to reach all the people at the most distant points in the community.

Proper standards on the one hand and accessibility to patients on the other are, therefore, the two opposing interests to be considered in determining the size of hospital communities. The cost of hospitalization is also a factor. Small hospitals, if they are adequately equipped and staffed, may be very expensive to operate. On the other hand, hospital communities may be so large that the inconvenience and cost of travel will discourage hospitalization.

Obviously, in sparsely settled areas, there must be a compromise between the size of the hospital and the radius of the community. In rural areas, as compared with urban, hospitals must be smaller but the area of hospital communities must be larger. In other words, those constructing hospitals must give consideration to the size of the hospital community, which is determined largely by population density and to a smaller degree by the demand for hospitalization.

As a first step in understanding and solving this problem the relationship of population density to the size of hospital communities must be measured. It is not

enough to know the general nature of the relationship—this relationship must be measured. It can be measured most effectively by relating the average size of hospital communities to population density and to hospital beds per 1,000 people. In order to do this, a statistical measure of the average size of hospital communities must be selected.

In this study, the average size of hospital communities in each of the 48 states was determined by dividing the square miles of land area by the number of centers having one or more hospitals in 1944.² We need

* Adapted from *Hospitals* 19:57-60, Nov. 1945.

¹ In this analysis a *hospital community* is defined as the area immediately surrounding any city or center having one or more general or special hospitals serving the general population. Hospitals excluded from this analysis are: nervous and mental, tuberculosis, Army and Navy, veterans', hospital departments of institutions, convalescent homes. Federal hospitals operated for merchant seamen and for American Indians were included on the grounds that they served a large segment of the civilian population. For the same reason industrial and isolation hospitals were also included.

Since we are thinking of hospital centers and not hospitals, the exclusion or inclusion of certain specialized types of hospitals has very little effect on the problem. Most special hospitals are located in cities having general hospitals also. The average size of a hospital community in a state is simply the total land area in square miles divided by the total number of cities or other centers having one or more hospitals.

² The population of each state on July 1, 1944, is shown in a special population report of the Bureau of the Census, dated March 10, 1945, Series P-45, No. 2. The land area of each state may be found in the Sixteenth Census of the United States, 1940, Population, United States Summary, First Series. Communities with one or more hospitals are shown in the *Journal of the American Medical Association*, Hospital Number, March 31, 1945.

TABLE I—AVERAGE SIZE OF HOSPITAL COMMUNITIES, 1944, BY STATES

States	Population		Square miles per hospital community	Hospitals per community	Beds	
	per square mile	per hospital community			per com- munity	per 1,000 population
Alabama	55.2	1110	61,300	1.54	118	1.93
Arizona	5.6	3664	20,600	1.23	68	3.29
Arkansas	33.7	1506	50,800	1.51	88	1.73
California	55.8	1128	62,900	1.76	212	3.38
Colorado	11.0	2363	26,100	1.45	93	3.56
Connecticut	362.7	169	61,300	1.41	243	3.96
Delaware	143.5	330	47,300	1.83	214	4.53
D.C.*	869.0	296	257,200	4.00	613	2.38
Florida	43.6	1107	48,300	1.61	120	2.49
Georgia	55.1	975	53,700	1.63	108	2.00
Idaho	6.4	2855	18,300	1.24	56	3.07
Illinois	138.2	500	69,000	1.94	263	3.82
Indiana	94.5	496	46,800	1.38	127	2.71
Iowa	40.5	718	29,100	1.35	93	3.20
Kansas	21.6	1157	25,000	1.38	84	3.35
Kentucky	65.6	757	49,600	1.40	105	2.11
Louisiana	56.1	1329	74,600	1.74	225	3.01
Maine	25.6	776	19,800	1.30	74	3.75
Maryland	215.2	430	92,500	2.04	339	3.67
Massachusetts	526.5	99	52,000	1.84	277	5.33
Michigan	95.2	492	46,800	1.61	144	3.07
Minnesota	31.4	678	21,300	1.42	95	4.46
Mississippi	45.9	878	40,300	1.50	69	1.72
Missouri	51.8	1539	79,800	2.29	273	3.42
Montana	3.2	3658	11,600	1.25	73	6.25
Nebraska	15.8	1217	19,300	1.36	74	3.84
Nevada	1.4	9982	14,200	1.09	66	4.62
New Hampshire	50.7	347	17,600	1.19	83	4.73
New Jersey	554.1	134	74,400	1.75	274	3.69
New Mexico	4.4	4340	19,000	1.21	50	2.64
New York	263.6	320	84,200	2.37	405	4.81
North Carolina	71.9	630	45,300	1.64	121	2.67
North Dakota	7.5	2123	16,000	1.30	79	4.94
Ohio	166.3	457	76,000	1.80	256	3.37
Oklahoma	29.8	1100	32,800	1.54	84	2.57
Oregon	12.6	2471	31,100	1.54	112	3.59
Pennsylvania	205.3	344	70,600	1.91	280	3.97
Rhode Island	736.3	132	97,400	1.50	351	3.60

* Including Arlington and Fairfax Counties in Virginia and Montgomery and Prince Georges Counties in Maryland.

TABLE I (continued)

South Carolina	62.9	874	55,000	1.51	122	2.22
South Dakota	7.3	2069	15,100	1.22	58	3.83
Tennessee	68.4	976	66,700	1.95	141	2.11
Texas	26.1	1425	37,200	1.62	85	2.30
Utah	7.4	3743	27,600	1.27	90	3.25
Vermont	33.5	515	17,300	1.11	71	4.26
Virginia	80.2	753	60,400	1.60	151	2.50
Washington	30.7	1522	46,700	1.82	177	3.80
West Virginia	71.2	651	46,400	1.70	160	3.46
Wisconsin	54.4	570	31,000	1.45	123	3.97
Wyoming	2.6	5132	13,500	1.11	44	3.29
United States	44.5	1074	47,800	1.63	162	3.39

not be concerned too much about the fact that hospital communities do not have definite shapes and boundaries. The essential statistical fact is that the distance between hospital centers can be measured and that such a measure is correlated perfectly with our measure of the average size of hospital communities. That is to say, the size of a hospital community may be expressed in square miles, or by the radius of a circle having an equivalent number of square miles. For instance, a circular hospital community of 10,000 square miles will have a radius of 56.4 miles and the average distance between hospital centers in such cases will be twice the radius, or 112.8 miles.

The general relation between population density and size of hospital communities may be seen best in Figure 1, the data for which are shown in Table 2.³ *As population thins out, the hospital areas get larger and population per community gets smaller.* In other words, there is a compromise between the size of the community area and the number of people to be served. Although the communities in sparsely settled states are very large, they are not large enough to include as many people per community as the more densely settled states. A state with 50 people per square mile and 4 beds per 1,000 people has on the

average 730 square miles and 36,500 people per hospital community. But a state with only 10 persons per square mile and 4 beds per 1,000 people has 2,097 square miles but only 20,970 people per hospital community.

Insofar as the relation of population density to community size is concerned, the degree of concentration of population in and around large cities seems to make little difference. The relationship within states is much the same as the relationship between states. The elimination of metropolitan

³ The data of Table 2 and Figure 1 are based upon a correlation analysis involving three variables: (1) people per square mile; (2) square miles per hospital community; and (3) hospital beds per 1,000 people. Each variable is a series of averages for the 48 states. The estimating or regression formula, derived from these variables, is:

$\log X = 4.2868 - .6559 \log Y - .0773Z$, where

$\log X$ = square miles per hospital community

$\log Y$ = people per square mile

$\log Z$ = hospital beds per 1,000 people

Ninety-two per cent of the variation in community size is associated with variation in population density and hospital beds.

When variables X and Y are reduced to logarithms the relationship appears to be a straight line. This means that a percentage change in population density is associated with a constant percentage change in community size regardless of the level of population density being considered. An increase in population density from 10 to 20 people per square mile results in the same percentage decrease in community size as does an increase from 20 to 40, or from 100 to 200 per square mile.

areas would reduce the average population density of a state but at the same time the average size of the hospital communities would be correspondingly increased.⁴ Metropolitan areas have not only dense populations but also many suburban communities with hospitals. Thus there is little to be gained by eliminating densely populated metropolitan areas from these calculations.

In order to test the relation of the influence of metropolitan centers further a special analysis was made of four major areas within the state of Michigan. It was found that the relationship of population density to hospital community size *within* Michigan was very similar to the relationship in the United States as a whole. For instance, northern Michigan has about 16 people per square mile and the average hospital community has about 971 square miles. On the other hand, southwestern Michigan has 89 people per square mile and 317 square miles per hospital community.

An increase or decrease in hospital use has the same general effect on community size as does an increase or decrease in population density. As Table 2 and Figure 1 show, states averaging from 4 to 6 beds per 1,000 people have much smaller communities, in both area and population, than do those states having from 2 to 4 beds per 1,000 people at all levels of population density. For instance, consider states with 50 people per square mile. Those with 2 beds per 1,000 people have 1,042 square miles and 52,100 people per hospital community, as compared with only 730 square miles and 36,500 people in states which have 4 beds per 1,000 people. Yet the 2-bed-per-1,000 states have only 104 beds per community as compared with 146 beds in the 4-bed-per-1,000 states.

The practical significance of this point is that hospital communities will probably be-

come much smaller if ways and means are found to extend hospitalization to all people in proportion to need rather than to effective demand or ability to pay.

Another significant point is: *A state may be under-hospitalized in proportion to population density as well as in proportion to need or demand.* Some states have plenty of hospitals but they need more hospital beds, and possibly a better distribution of hospitals. Other states may have nearly enough hospital beds but need more hospitals and hospital communities. Perhaps most states in some degree need both new hospitals and hospital beds.

Areas with one or less persons per square mile can afford and usually have only one hospital per community. At 40 people per square mile, there is an average of 1.5 hospitals per community; and at 1,000 people per square mile there are 2 hospitals for each community. A great urban center like Detroit with 12,000 people per square mile has 50 or more hospitals.

A practical hypothesis of planning, based on this analysis, is: More than one hospital per community is impractical in sparsely settled areas, but does become possible and practicable at population densities above 40 people per square mile.

CONCLUSION

This study has shown the folly of trying to set up one ideal size for the hospital community. Some have said that we should have one hospital every 30 miles, or possibly for every 30,000 people. Such standards are artificial and unrealistic. Even in a planned economy, the influence of hospital density on community size must be given due consideration. There must inevitably

⁴ Partial regression or correlation analysis shows that the regression of community size on population density remains the same regardless of the percentage of urban population in the states.

TABLE 2—AVERAGE SIZE OF HOSPITAL COMMUNITIES BY POPULATION DENSITY IN BEDS PER 1,000 PEOPLE, UNITED STATES, 1944*

Population per square mile	Average Size of Hospital Communities			Hospital beds per community
	Square miles	Radius in miles	Population	
At 2 beds per 1,000 people				
1	13,558	65.7	13,558	27
2	8,605	52.3	17,210	34
5	4,718	38.8	23,590	47
10	2,994	30.9	29,940	60
20	1,900	24.6	38,000	76
50	1,042	18.2	52,100	104
100	661	14.6	66,100	132
200	420	11.6	84,000	168
500	230	8.6	115,000	230
At 4 beds per 1,000 people				
1	9,497	55.0	9,497	38
2	6,028	43.8	12,056	48
5	3,305	32.4	16,525	66
10	2,097	25.8	20,970	84
20	1,331	20.6	26,620	106
50	730	15.2	36,500	146
100	463	12.1	46,300	185
200	294	9.7	58,800	235
500	161	7.2	80,500	322
At 6 beds per 1,000 people				
1	6,653	46.0	6,653	40
2	4,222	36.7	8,444	51
5	2,315	27.1	11,575	69
10	1,469	21.6	14,690	88
20	933	17.2	18,660	112
50	511	12.8	25,550	153
100	324	10.2	32,400	194
200	206	8.1	41,200	247
500	113	6.0	56,500	339

* See footnotes 3 and 4 for source of data.

be a compromise between the size of the hospital service area and the size of the hospital. In sparsely settled areas hospital communities must continue to be large and the number of people somewhat smaller than in the more densely settled areas. Just how large any particular hospital community should be is a matter for careful study by people well acquainted with all the facts.

The formula describing the relationship between community size and population density should not be interpreted as a rigid

guide for setting up new hospital communities. It describes only an existing situation which may or may not be the most desirable one. However, if planning is to be realistic we must first know what the existing situation is. If plans for new hospital communities involve something quite different from the existing situation then the proposed changes must be justified by good and logical reasons.

In other words, it might be said that the formula which describes the existing situation in the United States is only a general

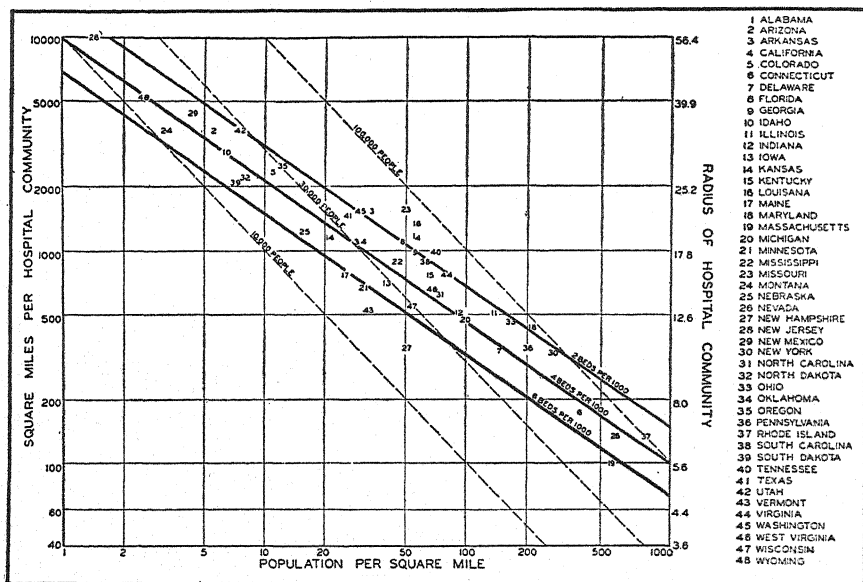


Figure 1—Relationship between population density and size of hospital communities by states, 1944. The numerals represent the 48 states listed at the right of the chart. The location of each numeral represents population per square mile and square miles per hospital community, the horizontal and vertical coordinates of the chart. The diagonal solid lines show the relation of hospital community size to population density at three levels of hospitalization: 2, 4, and 6 beds per 1,000 people. The diagonal broken lines connect points on the chart representing populations of 10,000, 30,000, and 100,000. Logarithmic horizontal and vertical scales are used in order to show a straight-line relationship between the two factors. For example, a percentage variation in community size is associated with a constant percentage variation in population density regardless of the level of population density under consideration, an increase in community size of 58 per cent being associated with a decrease in population density of 50 per cent. See text for further explanation of the nature and significance of the relationships shown by the chart.

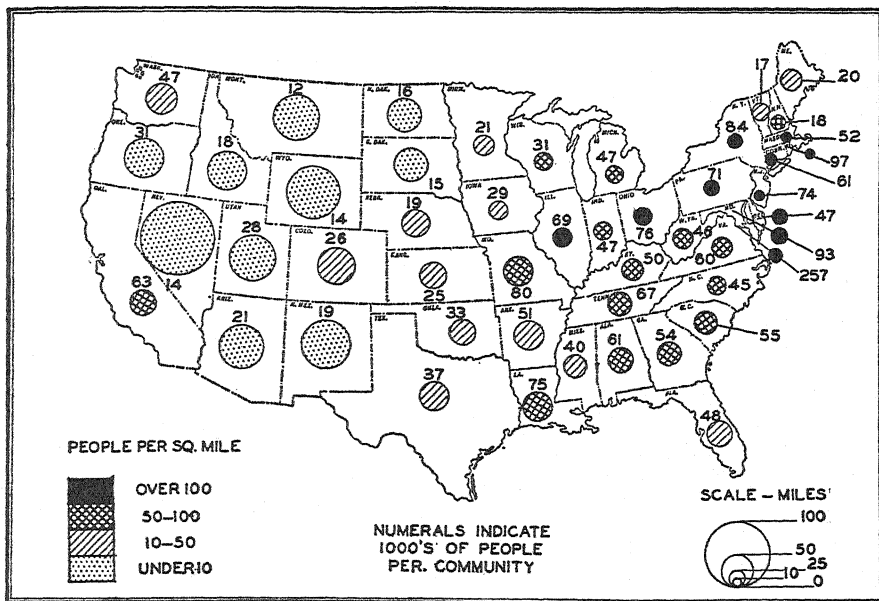


Figure 2—Average size of hospital communities in each state, 1940. The areas of the circles are in direct proportion to the average size of hospital communities.

law of averages from which some deviations are to be expected; or that it represents a norm of social behavior from which deviations should be made only after careful investigation.

Because hospital use is increasing one might assume that hospital communities in sparsely settled areas could be made smaller in the interest of convenience. On the other hand, improved roads and transportation facilities operate in the opposite direction. Yet, even with good transportation, distances greater than twenty-five miles constitute a serious barrier to more frequent use of hospitals.

To be sure, persons seriously ill will go great distances for high quality hospitalization. On the other hand, it must be remembered that an increasingly large number of hospital beds are being used for obstetrics and minor illnesses. After careful study of population distribution, hospital planners

in most states will find that few people need travel more than twenty-five miles to a good hospital. It is only in large areas having fewer than 10 people per square mile that distance will become a serious inconvenience.

As an answer to the problem of the sparsely settled community with not enough people to support a hospital, the small health center has been proposed. Such centers, it has been suggested, should have a few hospital beds for emergencies and the more simple cases of sickness needing hospitalization. Elementary diagnostic and laboratory facilities would also be provided.

It is not to be assumed that the health center could take the place of the larger hospital twenty-five or more miles away. The small health center, if closely affiliated with the hospital, would relieve the hospital of many simple cases and in return send the more complicated cases to the hospital.

2. Population Changes and Public Health Planning, *by G. F. McCleary, M.D.**

THE decline in the birth rate, now characteristic of western civilization generally, is bringing new problems into the field of public health. Will the health needs of the people be greater or less as the result of a decreasing proportion of young persons and a relative increase of old persons in the population? How will needs for medical care be affected? These and other problems are worth consideration.

During the last hundred years, the average expectation of life at birth among the white population of the United States has risen from about forty years to nearly sixty-four. In 1900, 44 persons in every 100 were under twenty years of age and only 4 persons as old as sixty-five; but by 1940, only about 35 out of every 100 were in the younger age group and nearly 7 were sixty-five or older. By 1980, according to the "medium" estimate prepared by Thompson and Whelpton for the National Resources Committee, the proportion aged sixty-five or over may be expected to rise to about 15 per cent.¹

As the population ages, the birth rate tends to drop to still lower levels and the death rate rises. The birth rate declines even if the fertility rates for each female age group remain constant because of the increase in the proportion of women who have lived beyond the child-bearing period and women in the later years of the period when reproductivity is relatively low. The death rate tends to rise, even with constant mortality rates for each age group, because an aging population contains an increasing proportion of older persons less able to put up a good fight against the forces making for death. The mortality of later life has been little if at all reduced. This is expressed in the epigram: "More people live to be old, but old people do not live

to be older." Hence, the deaths of persons in later life become relatively more frequent. In 1900, the deaths of persons aged forty-five and over constituted 42.5 per cent of all deaths in the United States; in 1938, the proportion had risen to 70.8 per cent.

The aging of the population will be reflected in changes in the character, frequency, and duration of sickness. In early life illnesses are of frequent incidence and short duration; in later life they are less frequent but of longer duration. The duration lengthens with advancing years. As the birth rate falls, the proportion of illnesses of the former type tends to diminish, that of the latter to increase. These changes raise questions of considerable practical importance to those responsible for planning health programs.

The implications of this new outlook in the public health field were discussed fifteen years ago by Dr. Louis I. Dublin, and subsequent events have confirmed the views he then advanced.² In a recent paper, Perrott and Holland have resurveyed the general problem, and, in particular, "the nature of future trends in mortality, morbidity, and the receipt of medical care which may be expected solely as a result of the changing age structure of the population."³

Discussion is based on records of disabling illness obtained in the National

* Adapted from *Medical Care* 1:313-320, Autumn 1941.

¹ National Resources Committee, *The Problems of a Changing Population*, Washington, Government Printing Office, May 1938.

² Louis I. Dublin, *The problem of old age, Health and Wealth*, New York, Harper, 1928.

³ George St. J. Perrott and Dorothy F. Holland, *Population trends and problems of public health, Milbank Memorial Fund Quarterly* 18:359-392, Oct. 1940.

Health Survey conducted by the U.S. Public Health Service in a house-to-house canvass in 1935-36. The records selected relate to illnesses causing a minimum of seven consecutive days of disability in the twelve months preceding the date of the canvass, and give the sickness experience of 1,581,577 white persons in 31 cities of 100,000 population and over. It is stated, however, that the records relating to tuberculosis, mental disease, cancer, and syphilis were incomplete, "because of certain limitations inherent in the house-to-house method of enumerating illness." The survey recorded (1) the frequency with which disabling illness, classified by cause, occurred at different age periods, and (2) the resulting days of disability. These age specific frequency and disability rates were then applied to the estimated population of the United States in 1980.⁴ It was found that the number of disabling illnesses would increase at the same rate as the population would increase, namely, 12 per cent; the aging factor would not increase the frequency of disabling illness as a whole. There would, however, be increased frequency of certain types of illness; for example, an increase of 56 per cent in cancer cases, of 51 per cent in illnesses due to degenerative diseases, of 41 per cent in rheumatic diseases, and of 23 per cent in nervous and mental diseases. These increases would be offset by decreases in the number of illnesses due to communicable diseases, tonsillitis, and disabilities associated with the puerperal state—decreases resulting from reductions in the number of births and in the child population.

But though the number of disabling illnesses would show no increase above that expected as a result of the increase in population, the changing age composi-

tion would increase the total days of disability by 31 per cent. The diseases of advanced age, which would become relatively more frequent, are mainly chronic, causing prolonged disablement, whereas the diseases of young people, which would become less frequent, are of short duration, and their diminished frequency would have but a slight effect in reducing the total volume of disability.

Perrott and Holland proceed to consider the effect of the aging factor on the services required for the prevention of disease and the treatment of the sick, and for this purpose utilize data obtained in the National Health Survey, supplemented by the results of a study made in 1928-1931 by the Committee on the Costs of Medical Care. This inquiry included all types of illness, whether disabling or not, and extended over small cities and rural areas as well as large cities. Estimates based on these data indicate that the aging factor would not increase the number of cases treated in hospitals or by physicians in home or office practice.

"The increment of patients in middle and old age would be balanced by the decline in younger patients. Hospital patients, exclusive of the tuberculous and mentally diseased, if estimated on the basis of age specific incidence rates, would be somewhat less numerous in 1980 than would be predicted with reference to the rate of population growth. However, as a result of aging of the population, the increase in the number of physicians' services would amount to 8 to 11 per cent more than the percentage increase in the population (8 per cent, data of the Committee on the Costs of Medical Care; 11

⁴ The estimate was based on the assumptions that the number of births would decline 12.4 per cent between 1935 and 1980, and that the age specific mortality rates of 1929-1931 would continue.

per cent, data of the National Health Survey) between 1935 and 1980. In this period, the factor of aging alone would account for an increase in hospital days of care (exclusive of patient days for the tuberculous and mentally diseased) amounting to 7 per cent, as estimated on the basis of results of the National Health Survey, and 12 per cent, on the basis of the experience of the Committee on the Costs of Medical Care. Thus, the increase in the volume of physicians' services and hospital days of care resulting from the increment of older patients indirectly will alter the case load of physicians and hospitals, and additional medical personnel and hospital facilities might be required to maintain medical care at its present standards."⁵

The aging factor would greatly increase the number of patients needing private duty nursing and the total days of nursing care. On the other hand, it would diminish the volume of visiting nurse services according to the results of the National Health Survey, though estimates based on the inquiry of the Committee on the Costs of Medical Care show an opposite trend.

These estimates of future sickness are put forward, not, of course, as prophecies, but as broad indications of what is likely to happen on certain assumptions, which may or may not be justified by events. It is, for example, assumed that the age specific frequency and disability rates of illness due to all causes, except confinement cases, will be the same in 1980 as in 1935; but it may reasonably be expected that advances in medical science and practice will reduce the rates. On the other hand, since the data relating to mental diseases were seriously incomplete, the results understate the probable future volume of disability due to these diseases and the resulting need for institutional provision. It

is possible to attach undue importance to the precise percentage increases recorded in this study, but there is no reason to question the broad conclusion that the aging of the population tends considerably to increase the volume of chronic disabling sickness and, consequently, the demand for the services (institutional and other) required to provide the patients with adequate care.

How will the reduction in the number of births and of children affect future expenditures of money on maternity and child welfare services and in the control of communicable disease? Such economies are unlikely to be among the results of the decline in the birth rate. The field of work will become less extensive in the sense that it will contain fewer individuals, but there will doubtless be more intensive cultivation. The spectacular reduction in infant mortality has shown the possibilities of prevention and emphasized the need for further effort. In 1939 infant mortality in the United States as a whole had fallen to 48 per 1,000 births, and in New York City it was 37.1—a remarkable demonstration of what can be done to prevent disease and premature death. Infant mortality in New Zealand in 1934-1938 was only 32 per 1,000 births, and there are still prospects of reduction. Further progress will require an intensive attack on the mortality in the first four weeks of life, which is still relatively high; and the problems of maternal mortality and morbidity, of preschool care, of school hygiene, and of child guidance will probably continue to furnish convincing reasons for more intensive public effort. The development of the maternity and child welfare movement has made it clear that progress in one direction leads to an effective demand for progress in others. It

⁵ Perrott and Holland, *op. cit.*

illustrates the truth of Whitman's saying: "It is provided in the essence of things that from any fruition of success, no matter what, shall come forth something to make a greater struggle necessary."

Similar considerations apply to the movements for the control of tuberculosis and of the venereal diseases. In both these fields of public health work, as in maternity and child welfare, further progress will call for an expanded provision of clinical services, both diagnostic and therapeutic. The attack on maternal mortality and morbidity has demonstrated the importance of adequate prenatal and postnatal care and of skilled attendance at delivery. Effective planning for tuberculosis and the venereal diseases will require the extensive provision of clinical services both for the discovery of cases and for the supervision and treatment of patients. It would be unsafe to conclude that as the number of young people decreases there will be any diminution in the total volume of public health services provided for them.

There can be no doubt, however, that as the population ages and chronic disabling disease increases in volume and public importance, there will be an increasing demand for an extended provision of health services for the older members of the community. The chief killing illnesses in later life are diseases of the heart, cancer, cerebral hemorrhage, nephritis, arteriosclerosis, and diabetes. These diseases, which in 1937 accounted for 71.7 per cent of the deaths in the United States of persons aged sixty and over, will become more prevalent as the population grows older. Since their etiology is obscure, effective preventive methods are still to seek, though among young adults the mortality from valvular disease has been lowered through reduction in rheumatism and

other infections. Further progress may be expected as syphilis is brought under control. There is special need for more research in this field of pathology, particularly on the preventive side, but in the meantime much may be done on the therapeutic side to make early diagnosis and treatment more widely available. For instance, advances in surgery and radiotherapy have shown that a large proportion of patients suffering from cancer can be cured or substantially relieved if competent advice is obtained at an early stage of the disease.

In England recent inquiries by the Ministry of Health revealed that many cancer sufferers either did not receive treatment under satisfactory conditions or received it at too late a stage. It appeared also that there was an insufficient number of hospitals adequately equipped for all forms of treatment. One result of the investigation was the Cancer Act, 1939, which requires local governmental health authorities to provide adequate facilities for the treatment of patients suffering from cancer, and facilities for diagnosis also. The authorities are to make the fullest use of all hospitals that are adequately equipped for treatment by surgery and radiotherapy. They are empowered to establish a sufficient number of centers for consultation to facilitate diagnosis and observation after treatment, and to pay, when necessary, the traveling expenses (including those of a companion) of persons availing themselves of the services. One half of the approved expenditure incurred by the local authorities is repaid from the National Exchequer. Work on the lines of the Cancer Act might with advantage be extended to diabetes and other diseases of later life.

The needs of the aged, however, present many problems that will not be solved by the provision of medical care. As under modern social conditions families be-

come smaller and less coherent, many feeble old couples and single men and women live lonely lives on small means, and have difficulty in providing themselves with the domestic help and amenities necessary for the comfort of their last years. For such persons new forms of social serv-

ice will be required and special housing accommodation. Provision for the needs of the aged is already a feature of some housing projects, and such accommodation will doubtless be increasingly provided as communities realize their responsibilities for the welfare of their old people.

3. Opportunity for Collaboration in Health Planning, *by James M. Langley**

MY PRESENCE here today is as a representative of the New England Council, with which you may or may not be familiar.

The Council is an extragovernmental regional organization created by the governors of the six New England states in 1925 for the purposes of encouraging preservation of the initiative of New Englanders as individuals, and as citizens of their respective states, while at the same time providing an over-all agency which could combat decadence and reactionary tendencies which often spring from native independence.

The only power which the Council possesses is that of persuasion. Yet it has served admirably as the instrumentality of greater New England self-analysis, as a medium for the friendly and constructive exchange of ideas and cooperation between the New England states, and as the means to presentation of a more solid New England front in the relationships of this region and the rest of the world.

The Council does not limit itself to the economic, or the social, or the governmental, or the physical aspects of New England. Its interests embrace them all. For that reason the Council is concerned about what all of New England does in current efforts to bring abreast of the great advances in the field of medicine the facilities and organization through which alone the people may benefit most.

In each of the New England states plans

are being made to improve facilities and organization for the practice of medicine. Prospective building plans already total many millions of dollars in this area. State hospital and health center study groups or commissions are being or have been established. Within each state there is the independent action which the New England Council believes so desirable. If this is so why not leave well enough alone? Because there is something more to be done than is yet provided for.

The New England states are small. Their cross-border interests are numerous. That is so in the field of medicine. It is so because the science and economics of the practice of medicine have changed until a widespread, intricate, and costly organism has become necessary to the dissemination of its skills.

In my own state the hospital in Hanover serves tens of towns in Vermont, while the hospital in Portsmouth serves towns in Maine. At the same time it is necessary for New Hampshire people to come to Boston when some medical skills are desired. Educationally only a premedical course can be had within the state.

There has been an increasing tendency to think in terms of horizontal organization in the field of medicine, but so far action in this respect is far behind. Action is

* Adapted from New England Hospital Assembly, *Convention by Mail*, May 1945 number, pp. 5-6.

still too vertical in character. The most advertised New England doctors' group practice, the Leahy Clinic, is essentially a vertical organization. The less well-known Pratt Clinic, on the other hand, is consciously attempting to function horizontally and with the help of the Bingham Associates is making its diagnostic and therapeutic skills available through two district and many rural hospitals to many of the people of the state of Maine, crossing state lines to do so.

With the considerable expansion of physical facilities which will follow the war, together with the return to civilian practice of many physicians, there is an opportunity to make great advancement horizontally. Unless this is done the fullest advantage will not be taken of the heavy investment in the field of medicine New Englanders are being asked to make. Nor will all the promises made in soliciting this financial support for expansion of facilities have been fulfilled.

To effect the horizontal organization of the practice of medicine in New England, state lines must be crossed. The state hospital and health facility studies must be coordinated on an interstate basis in New England, perhaps more than in any other region in this country.

The dissemination of medical skills is, at its best, costly. One of the pressing problems is to keep the cost as low as possible, else the skills cannot be made available to more than the favored few. This is recognized in launching the state studies but in New England it must be recognized regionally to provide the best possible service to the most people at the lowest possible cost.

The only way in which regional considerations will get attention is through the voluntary cooperation of the agencies within each of the states which are in-

volved. Neither in proposed federal hospital aid legislation nor elsewhere is there any compulsion to ignore provincial development of the studies by any given state.

Actually pending legislation in Congress tends to encourage an effort on the part of each state to become self-sufficient in the field of medicine. In states of smaller population, that certainly is not practical and probably not even desirable. On the other hand principal reliance in the contemplated efforts to do a better job is upon voluntary local action, in the preparation of plans, in provision of the cost of additional facilities, and in the organization and operation of these facilities.

We know that as facilities and equipment are expanded, they are often used to an extent entirely unanticipated—provided, of course, that such expansion takes place under the direction of competent professionals. Because of this we know that the public needs and wants more medical care than it has yet had.

We know that, even though a given community may seem to have sufficient hospital beds, the mere number of beds is no measure of the quality of the service being provided, nor of the actual need of medical services.

We know that there is much to be done, even in a region like New England, where our institutions are often older than elsewhere in the country, where they are often better endowed, and where per capita wealth is such that the people as a whole can afford to make greater use of health facilities than in some other regions of the nation.

Another thing we know is that, because the cost of the best diagnostic and therapeutic treatment is high, the most efficient management must be maintained and the use of facilities at a rate between 60 per cent and 70 per cent utilization sustained. There

has been improvement in New England in this respect, but there is still room for improvement in this rate in most general hospitals. Two principal factors are involved—flexibility of the physical plant so far as use is concerned, and the best professional supervision and direction of each of the special services a hospital attempts to provide. Many communities cannot have these things without both good planning of structures and coordination of services with those of larger communities.

A rural hospital, so-called, is little more than a dispensary or first aid station unless its management is related to bigger hospitals, and then only if the bigger hospitals in turn are well organized. This fact is lost to sight when rural interests reason that if public funds are to be used to aid hospital and health facility expansion the bulk of such funds should go to rural construction.

The New England Council hopes that such answers as can be developed by the

individual state studies to these problems will be supplemented by a consolidation and analysis upon a New England-wide basis. To this end the Council would be glad to publish and to help distribute the results of such a consolidated analysis as a contribution to better understanding of the whole problem and in support of progress in the field, in this region, now and later to be programmed.

The Council offers its cooperation because there is no regional level of government in New England, yet the Council is recognized and used repeatedly by the state governments as a regional medium of cooperative action. Its nearly 2,000 members represent not only all of the states but all economic activities and social concepts inherent in New England hospitals or otherwise active in the field of health, and every member is a prospective contributor to the expansion of the hospital and health facilities in which you are all interested.

4. For Better Service Michigan Produces First Rural Hospital Council, *by Forst R. Ostrander**

HOSPITAL administrators of southwestern Michigan have been quite regular in attendance at the Tri-State Hospital Assembly and the national conventions of the American Hospital Association. A large number are members of the state association.

While in attendance at the assemblies and conventions we have been impressed with the fact that our problems were not adequately analyzed and discussed, that often they were handled by a person whose experience did not fit him to discuss the problems of the small rural hospital. In short, we have come away from these conventions feeling that the small hospital (big in the eyes of the rural community in which it is located) has been largely under-

estimated in its importance with relation to community and national health.

In 1943, therefore, after several informal discussions in which we had the counsel of the W. K. Kellogg Foundation, a group of eighteen administrators decided that the state and national associations were not meeting the needs of the small rural hospitals and we therefore grouped together for mutual profit to organize the Southwestern Michigan Hospital Council. We believe that by the development of this hospital council our members can serve their communities better and that from these

* Adapted from *Mod. Hosp.* 64:72-73, Feb. 1945.

efforts the state and national associations will benefit.

The by-laws and articles of incorporation which will establish the council as a nonprofit corporation are now being perfected. Six trustees have been appointed for a term of three years, two being elected by the members at each annual meeting.

It is natural that one should ask, before seeking membership in this council, about its object or purpose. The by-laws state: "Its object shall be to promote the welfare of the people through the development of hospital and out-patient service. To further this object, the council shall encourage education of the professional and nonprofessional hospital personnel, aid in the health education of the public, cooperate with other organizations having similar objectives and do all things that will best promote hospital and out-patient efficiency."

To live, an organization must have action as well as a purpose. The Southwestern Michigan Hospital Council is no exception. The executive committee has prepared a fairly long-range program. For each meeting a program is planned that will further the object of the council. The hospitals of the council are definitely interested in the growth of the Blue Cross and, consequently, are active in promoting such plans as will obtain an increased enrollment.

The council is a cooperating agency with the local county health departments, which makes for greater efficiency in community health service. This provides the hospital with the groundwork for a public relations program through the county health departments. The activities of the various county health departments with relation to the hospital council are correlated in the health director of the W. K. Kellogg Foundation, which permits unified action.

The council has been active in the use of educational facilities for personnel and

has provided refresher courses for various groups. For example, all of the operating room personnel has had the advantage of a short course. Obstetrical nurses are now being offered a short course in nursery technique through the Kellogg Foundation. Laboratory technicians are given a two weeks' course each year in addition to two weeks' vacation. The personnel of the x-ray department is likewise provided with opportunities to study new techniques or to check on those in use.

At the bi-monthly meetings the members may present for discussion any problem related to their work. The problems presented are never passed by as unimportant. Cooperation and unity of action are fostered in the meetings. The plan of programs for the meetings is to have speakers present subjects that are timely and of general interest.

Administrators of small rural hospitals that are approved or are working toward approval by the American College of Surgeons must be awake to the needs of the community, the medical staff, and the hospital. They are seeking counsel and are interested in the latest developments in the whole hospital program.

It may therefore be of interest to many in like position to know what has been accomplished since the council began a definite plan of organization several months ago.

Because of the large area served by the council and the fact that the administrators could ill afford the time to visit the various hospitals to discuss mutual problems at times other than the regular meetings, it was considered advisable to obtain a well-qualified administrator to act as administrative consultant. Asa S. Bacon, superintendent emeritus of Presbyterian Hospital, Chicago, was employed to serve in this capacity and has been of considerable as-

sistance to many of the superintendents in the hospitals of southwestern Michigan.

Through the efforts of the administrative consultant, whose services are available to any member of the council, some hospitals have solved problems that seemed to be beyond the ability of the management, particularly in obtaining needed equipment, remodeling and correcting laundry and heating problems.

The shortage of nurses coupled with increased use of the hospital added so much to their problems that the services of the administrative consultant became of increasing value. This program has now been continued through the cooperation of the Kellogg Foundation for the period of one year.

For the past several months the council has been working on a program approved by the State Department of Nursing for the

placement of senior cadet nurses in the small rural hospitals of this area for several months of training in rural community health. A qualified nurse coordinator has been employed and the program is now underway. Several senior cadet nurses have been placed in some of the member hospitals and are enthused about the training available.

The Southwestern Michigan Hospital Council has had a slow but well-founded beginning. Hospitals in other parts of Michigan are now becoming interested and it is recognized that such an organization has much of value to any progressive hospital. This organization could well serve as a model for like councils in other states where there is a need or a desire better to serve the community, as well as to provide a training program for the hospital personnel.

5. Making the Regional Council Pay Dividends, *by S. A. Ruskjer**

THE very first letter addressed to the hospitals of western Kentucky in the interest of organizing a hospital council met with almost one hundred per cent response. A dozen hospitals are now happy to be members of the Western Kentucky Hospital Council. For the most part they have operated for many years, acting quite independently of one another and failing to learn helpful lessons from mutual experiences. The fact that cooperation rather than unhelpful competition brings happier results to all concerned had not impressed itself seriously upon the mind and policy of these administrators.

These hospitals range from 25 to 150 beds in size and operate in cities of from 1,000 to 50,000 in population. These several institutions had, over the years, given their best hospital service to their communities, but it was felt by some of us that much

could be gained by each hospital in the territory now covered by our council if the leadership of these institutions could get together, become really acquainted, and do team work in building up a stronger hospital program for the good of the whole territory while incidentally benefiting each member institution.

A letter addressed to the head of each hospital outlined some of the much needed improvements that could be achieved if all leaders were willing to take the larger view of the hospital program for the common good of all. We pointed out that if the hospitals of western Kentucky ever succeed in doing the bigger job for this territory it will be because of team work on the part of all hospital administrators.

That first letter was mostly a "feeler,"

* Adapted from *Hospitals* 18:58-60, Aug. 1944.

seeking to learn whether the administrators were really satisfied in following a self-centered program or whether they wanted a give-and-take program of healthy progress with growth and development for both themselves and their institutions.

The response was most gratifying. Soon an invitation was sent to those interested in the great possibilities offered by a council. All these leaders joined heartily in organizing the council, adopting the proposed constitution and by-laws, and electing officers.

Among other things we decided: (a) to hold a meeting once each month, (b) to make our meetings very informal—no papers to be read or formal speeches made, (c) to rotate meetings among the member institutions, thus giving every member of the council opportunity to visit and inspect every fellow institution, (d) to propose to administrators seeking counsel on problems that they forward their questions to the program chairman for discussion at the next meeting, (e) to begin and close each meeting on time, allowing two full hours for round table discussions.

In drawing up our constitution and by-laws we copied good points from those already in use by other councils, although these were usually in the larger centers. We could find none operating among the smaller and more rural hospitals, and this seemed especially true of rural territory that does not benefit by any foundation or endowment fund.

Our member institutions became very enthusiastic as they came to realize how helpful a council can be even in territory where hospitals are separated by many miles. Other hospital leaders in the state caught the spirit and several more councils have been organized, so that there is scarcely a hospital in the state that is not now a member of a regional or city council.

We have found that our constitution and by-laws serve their purpose fully. A very plainly expressed and brief document, it is reproduced here in its entirety since it may help others in the organization of a hospital council.

CONSTITUTION AND BY-LAWS HOSPITAL COUNCIL OF WEST- ERN KENTUCKY

Article I

The name of the Council shall be the Hospital Council of Western Kentucky.

Article II

The object of the Council shall be to promote the welfare of Western Kentucky, insofar as this may be done by aiding the development of the hospitals belonging to the Council so that they may render the best possible service to the patient. The Council may give suggestions as to the erection of new buildings, advice and aid as to securing the best equipment and promoting the general efficiency of the hospitals and their operation; it shall also endeavor to advance the interests of all medical services in the institutions and in the education of the public in hospitalization.

Article III

Members shall be those who exercise the function of administrators, superintendents, business managers, credit managers, directors of nurses, etc., of a hospital. Each member-hospital shall be entitled to not more than two representatives at any meeting.

Article IV

The executive officers shall be a president, vice president, secretary, assistant secretary, and treasurer.

BY-LAWS

Article I

The regular meetings of the Council shall be held generally once each month at such place and time as may be agreed upon at the preceding meeting, it being under-

stood that in time meetings will be held in all sections of the territory served by the Council.

The vice president shall, at the request of the President, or during his or her absence, act as president and exercise all the duties of the president. Special meetings shall be called when necessary by the president, or in his or her absence, by the vice president.

Article II

Section I. All officers shall be nominated by a committee of three named at the meeting preceding the election and election shall be by ballot. Nominations from the floor are in order.

Section II. A majority of the votes cast will constitute an election.

Section III. All officers shall serve for one year or until their successors shall be duly elected and qualify; should a vacancy occur, the Council shall elect such officer at its next regular meeting.

Article III

Section I. The president shall preside at all meetings of the Council and shall appoint all standing and special committees.

Section II. In the absence of the president the vice president shall perform his or her duties.

Section III. The secretary, or assistant secretary, shall keep all records of the meeting. The treasurer shall render an account of the money in his or her possession at the end of each calendar year.

Article IV

The president shall, upon election, appoint the following standing committee chairmen: program, legislative, group hospitalization, hospital statistics, nursing, purchasing and costs. The chairman of each committee shall appoint his own assistant.

Article V

The dues shall be one dollar per year, payable in advance.

Article VI

The by-laws shall be amended from time to time as the members of the Council see fit, but a change of the by-laws shall require a two-thirds majority of those present. A quorum shall consist of one-third of the membership of the Council.

It will be noted that the dues are only \$1 a hospital a year. This takes care of stationery and postage. The host hospital meets any expense involved in serving a meal or refreshments. Each hospital supplies its representative with necessary transportation to the monthly meeting. The share-a-ride plan is followed. A car starting from the most distant member hospital picks up the administrators of hospitals located en route to the place of meeting.

We desire to list here a few of the many worthwhile accomplishments already achieved by our council. The administrators have become acquainted with each other to the point where a friendly, sympathetic, cooperative, understanding spirit has taken the place of the former aloofness so characteristic of individual, isolated, and independent effort. Teamwork in meeting and solving hard problems always brings success and makes for progress.

The council has resulted in a more nearly uniform program in the member institutions. By "program" reference is made to such items as patient care, treatment of employees, financial charges for similar accommodations and services, amount of laboratory work done routinely, working hours for helpers in kitchen or laundry, living quarters for nurses, and basic salary rates.

The member hospitals of our council agree not to take employees from one another by offering wage or other incentives.

If an employee wants to change too frequently from one institution to another, he is not employed by a new institution until the administrators affected have conferred with each other as to the reason why the employee is changing from one hospital to the other.

The council has meant much to our hospitals in the matter of purchasing. If one hospital has experimented with a new or untried product the result is passed on. We have saved through centralized, quantity buying to benefit by the reduced rates on large quantities.

The council has helped equalize distribution of supplies by lending needed materials until lost or delayed shipments arrive. In other words, the program now is one of cooperation instead of the old way of each hospital looking out for its own needs only.

The administrator of one hospital learns that a technician is available. He does not need an additional technician, but he remembers having heard at the council meeting a few days ago that one hospital does need a technician. He sends word immediately to the second administrator and soon that need is supplied. The council has made one family of administrators out of what used to be a dozen detached executives going separate ways.

Such cooperation means much to both doctors and their patients. It can open the way for improvements the smaller hospitals could neither obtain nor finance while acting alone. Let me illustrate by pointing out what we have done in this cooperative program to provide pathological services for the laboratories of smaller hospitals.

A registered pathologist capable of giving services of the highest order is not often found as a full-time employee of a small hospital laboratory. Yet both the

surgeon and the patient in the small hospital are just as deserving of his services as in the case of a large hospital.

If the smaller hospital must depend upon its pathological work being done in some distant laboratory it means hardship for both surgeon and patient. In that case the patient is taken to the operating room and given anesthesia while some tissue is removed. After a few days the patient returns home to await the findings of the pathologist in a distant city to whom the tissue was sent. When the report covering the finding does arrive, the patient is re-admitted to the operating room for the kind of operation indicated.

Cooperation among smaller hospitals makes possible the same pathological services enjoyed by the larger city hospital. Two or three smaller hospitals can share the time and cost of a registered pathologist who can give his time to three hospitals on some such plan as this: Hospital A, Mondays and Thursdays; Hospital *B, Tuesdays and Fridays; Hospital C, Wednesdays and Saturdays.

On the two days he spends in each hospital he can "do" all the specimens that have accumulated during his absence. Surgeons can schedule their elective suspicious cases for those days. By this arrangement the patient is taken to the operating room only once and put to sleep only once. Three minutes after the tissue specimen has been removed, the pathologist has made a frozen section, sliced and examined the tissue, and reported to the surgeon whether malignancy is present or not.

This kind of program gives surgeon and patient the same services obtainable in the large city hospital. A very small "tissue analysis" fee which the patient is only too glad to pay enables the hospital

to pay its share of the cost of the pathologist and other laboratory expense.

Another advantage of this plan for the staff of the smaller hospital is that the monthly staff meeting can be scheduled to take place at the close of one of the days the pathologist is present, thus employing his services in the meetings as cases are being reviewed and diagnoses examined. And by spending a part of his time with the staff members of the smaller hospitals he will enhance the value of post-mortem examinations.

The above merely illustrates what the possibilities are before the smaller hospitals if they unite their efforts in one

rounded off program. The very same arrangement can be made by smaller hospitals to provide for themselves on a self paying basis such important features as x-ray interpretations, electrocardiograph readings, or eye, ear, nose and throat specialties.

When the smaller hospitals in more rural territory are brought into a happy and close cooperation by the hospital council, unlimited opportunities present themselves for growth, development, and constant improvement which will give to doctors and patients in more sparsely settled territory the very same advantages enjoyed by dwellers in metropolitan communities.

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